

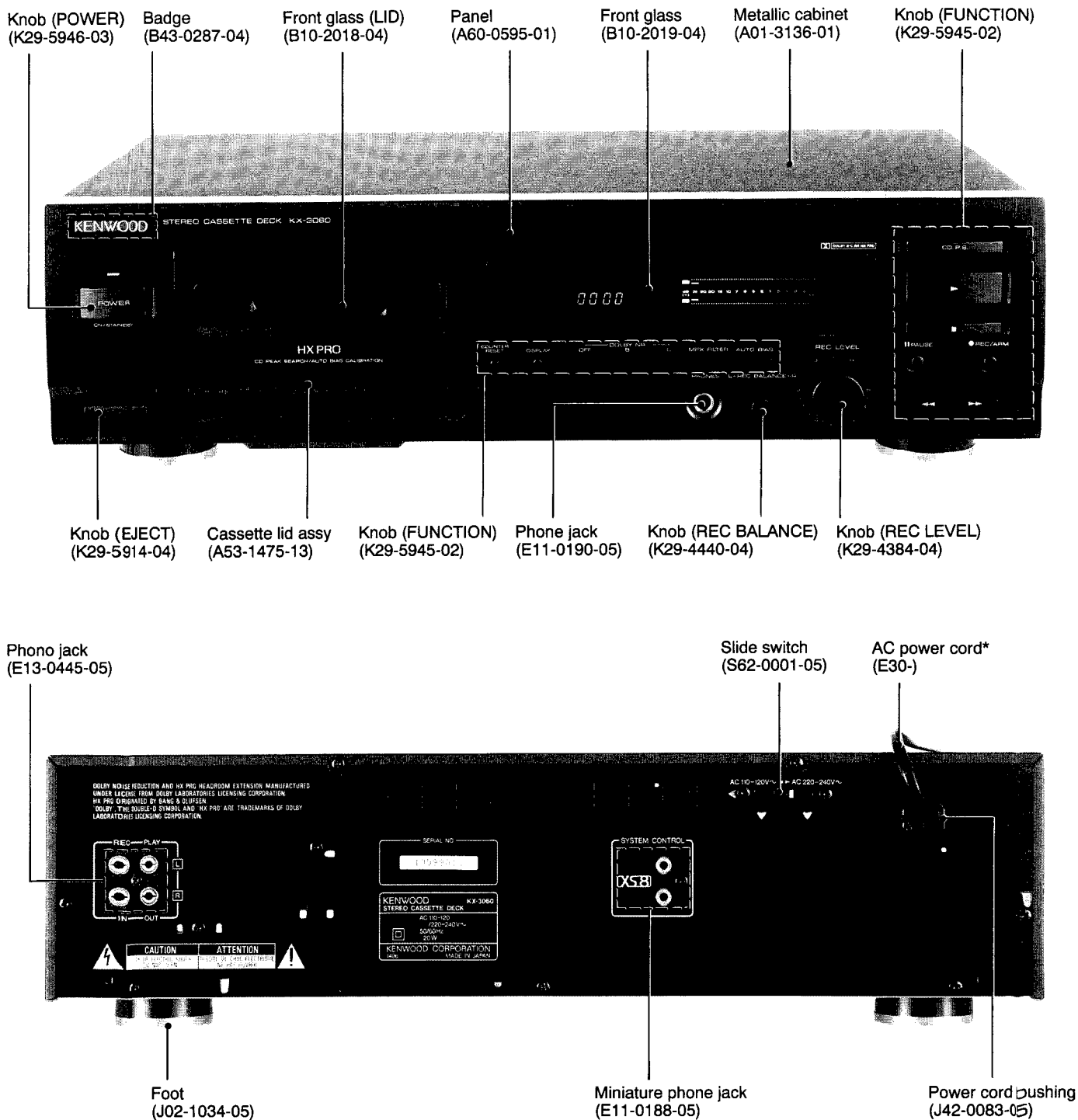
STEREO CASSETTE DECK

KX-3060

SERVICE MANUAL

KENWOOD

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(Photo is KX-3060 M type)

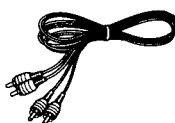
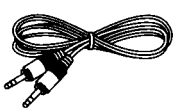
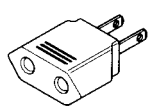
* Refer to parts list on page 31.

KX-3060

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ACCESSORIES

Audio cord 2 (E30-0505-05)	System control cord 1 (E30-2733-05)
	
AC plug adaptor 1 (E03-0115-05) (Except for Australia, Canada, Europe and U.K.) For the unit with a European AC plug in areas other than Europe.	
	

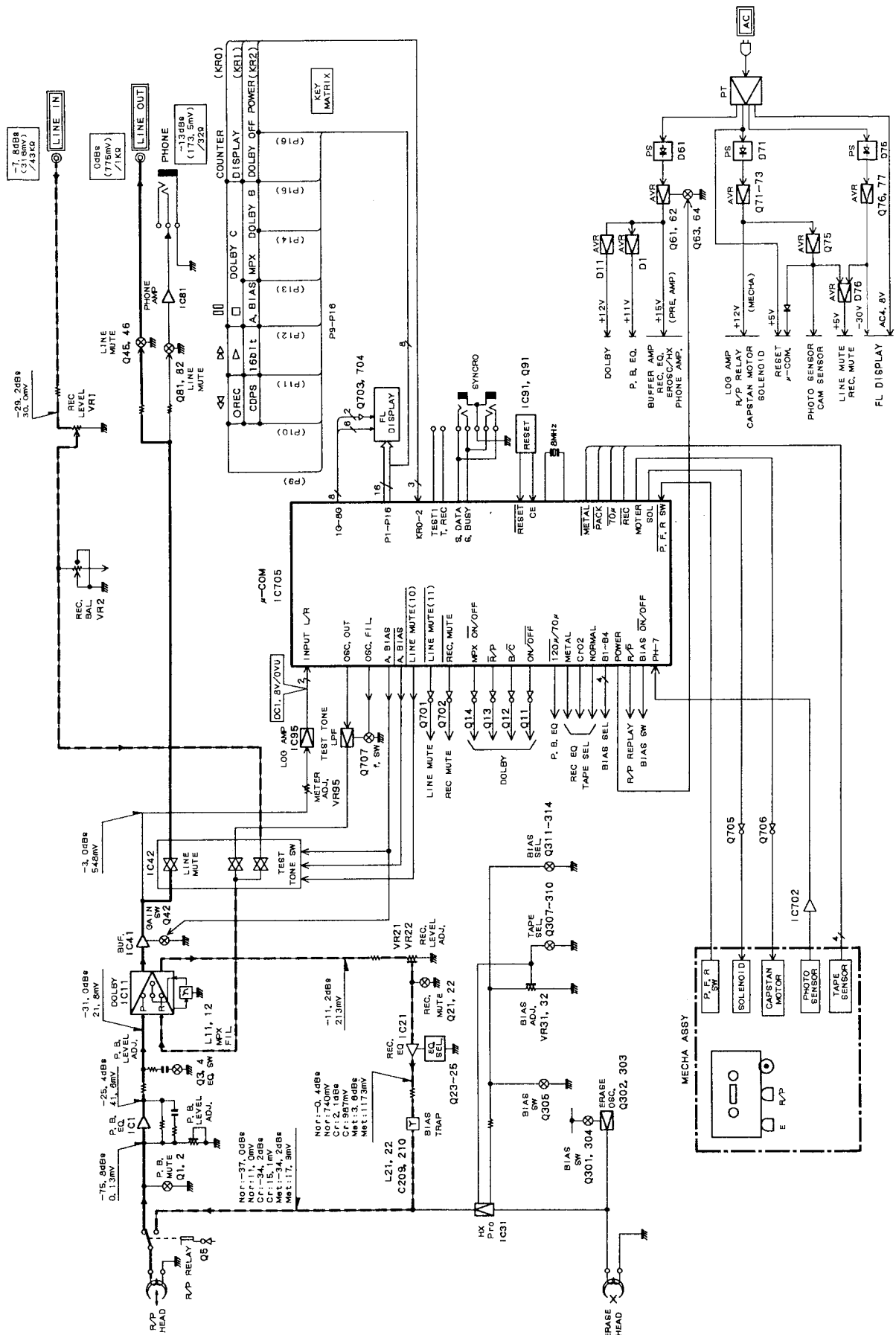
Beware of condensation

When water vapor comes into contact with the surface of cold material, water drops are produced. If condensation occurs, correct operation may not be possible, or the unit may not function correctly. This is not a malfunction, however, and the unit should be dried.
(To do this, turn the POWER switch ON and leave the unit as it is for several hours.)

Be especially careful in the following conditions :

- When the unit is brought from a cold place to a warm place, and there is a large temperature difference.
- When a heater starts operating.
- When the unit is brought from an air-conditioned place to a place of high temperature with high humidity.
- When there is a large difference between the internal temperature of the unit and the ambient temperature, or in conditions where condensation occurs easily.

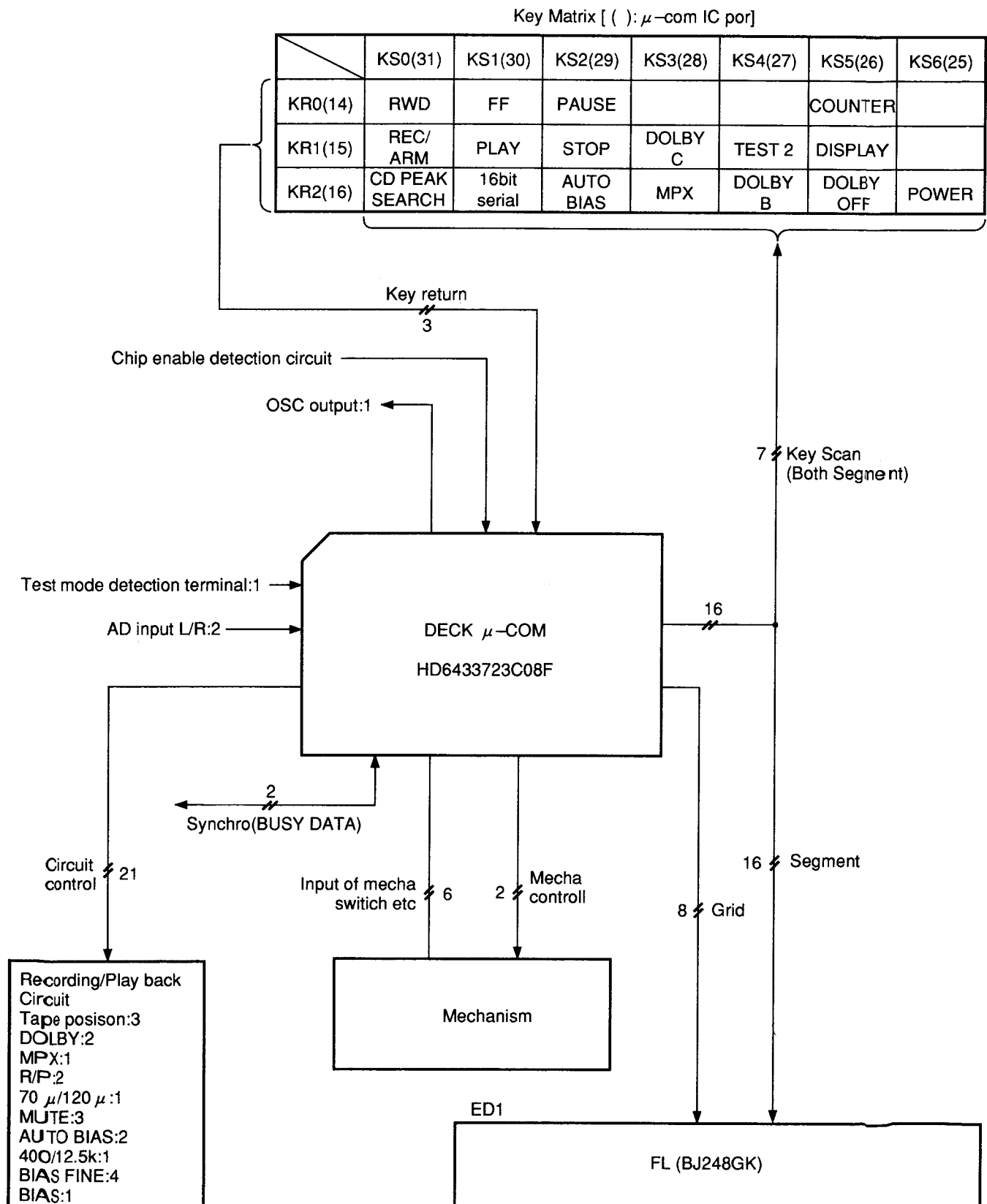
BLOCK DIAGRAM



KX-3060

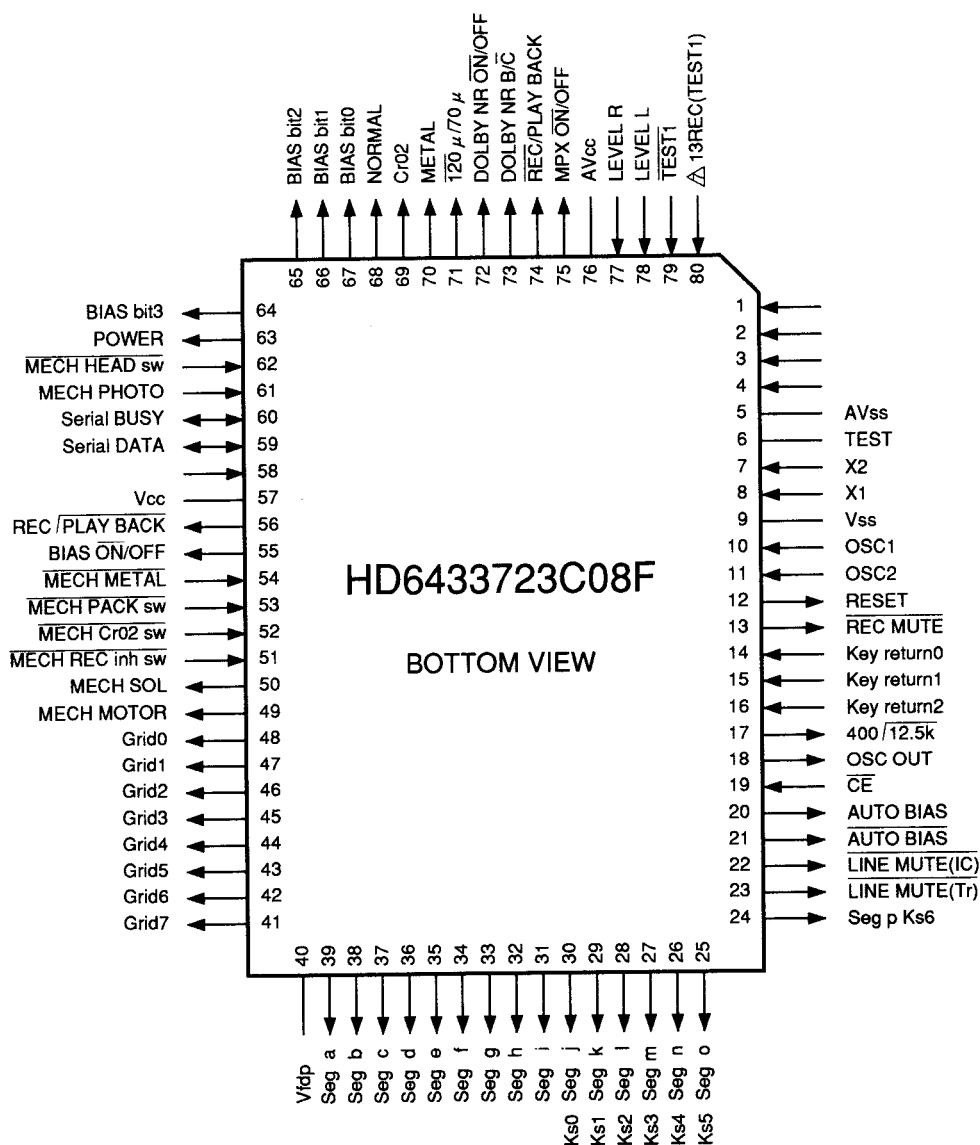
CIRCUIT DESCRIPTION

Microprocessor periphery block diagram



CIRCUIT DESCRIPTION

Microprocessor (HD6433723C08F):(X26-: IC701)



CIRCUIT DESCRIPTION

Pin Description

Pin No.	Name	I/O	Description
1		I	Unused
2		I	Unused
3		I	Unused
4		I	Unused
5	AVss		Standard GND for A/D input
6	TEST		Chip test pin. to Vss
7	X2	I	Crystal oscillator connection pin. to Vcc open
8	X1	I	Crystal oscillator connection pin. to Vcc open
9	Vss		GND for operation
10	OSC1	I	System clock oscillator connection
11	OSC2	I	System clock oscillator connection
12	RESET	O	μ -COM · RESET
13	REC MUTE	O	Recording mute control
14	Key return 0	I	Return pin of auto key scan
15	Key return 1	I	Return pin of auto key scan
16	Key return 2	I	Return pin of auto key scan
17	400 / 12.5 k	O	OSC filter selection
18	OSC OUT	O	Output square wave using TIMER E
19	CE	I	Detects chip enable
20	AUTO BIAS	O	ON during AUTO BIAS and OFF in modes other than AUTO BIAS
21	AUTO BIAS	O	OFF during AUTO BIAS and ON in modes other than AUTO BIAS
22	LINE MUTE (IC)	O	Line mute control (IC)
23	LINE MUTE (Tr)	O	Line mute control (Tr)
24	Ks6 Seg p	O	Segment output for FDP : p : key scan output 6
25	Ks5 Seg o	O	Segment output for FDP : o : key scan output 5
26	Ks4 Seg n	O	Segment output for FDP : n : key scan output 4
27	Ks3 Seg m	O	Segment output for FDP : m : key scan output 3
28	Ks2 Seg l	O	Segment output for FDP : l : key scan output 2
29	Ks1 Seg k	O	Segment output for FDP : k : key scan output 1
30	Ks0 Seg j	O	Segment output for FDP : j : key scan output 0
31	Seg i	O	Segment output for FDP : i
32	Seg h	O	Segment output for FDP : h
33	Seg g	O	Segment output for FDP : g
34	Seg f	O	Segment output for FDP : f
35	Seg e	O	Segment output for FDP : e
36	Seg d	O	Segment output for FDP : d
37	Seg c	O	Segment output for FDP : c
38	Seg b	O	Segment output for FDP : b
39	Seg a	O	Segment output for FDP : a
40	Vfdp		Power supply pin for driving the FDP (–30[V])
41	Grid 7	O	Grid output for FDP : 7G
42	Grid 6	O	Grid output for FDP : 6G
43	Grid 5	O	Grid output for FDP : 5G

CIRCUIT DESCRIPTION

Pin No.	Name	I/O	Description
44	Grid 4	O	Grid output for FDP : 4G
45	Grid 3	O	Grid output for FDP : 3G
46	Grid 2	O	Grid output for FDP : 2G
47	Grid 1	O	Grid output for FDP : 1G
48	Grid 0	O	Grid output for FDP : 0G
49	MECH MOTOR	O	Mechanism motor control output
50	MECH SOL	O	Mechanism solenoid control output
51	MECH REC inh sw	I	Mechanism recording inhibit switch (Low active)
52	MECH CrO2 sw	I	Mechanism CrO2 detection SW (Low active)
53	MECH PACK sw	I	Mechanism PACK detection SW (Low active)
54	MECH METAL	I	Mechanism METAL detection SW (Low active)
55	BIAS ON /OFF	O	Bias oscillator control L : OSC
56	REC/ PLAY BACK	O	REC/PB selection H : REC
57	Vcc		μ -COM power supply (+5[V])
58		I	Unused
59	serial DATA	I/O	Serial communication with other equipments (DATA)
60	serial BUSY	I/O	Serial communication with other equipments (BUSY)
61	MECH PHOTO	I	Photo interrupter detect input from mechanism
62	MECH HEAD sw	I	Head position detect switch (Low active)
63	POWER	O	Power port output
64	BIAS bit 3	O	Pin for variable bias (MSB)
65	BIAS bit 2	O	Pin for variable bias
66	BIAS bit 1	O	Pin for variable bias
67	BIAS bit 0	O	Pin for variable bias (LSB)
68	NORMAL	O	HIGH only at NORMAL position
69	CrO2	O	HIGH only at CrO2 position
70	METAL	O	HIGH only at METAL position
71	120μ / 70μ	O	Play back equalizer control (High = 70u/Low = 120u)
72	DOLBY ON /OFF	O	DOLBY ON/OFF selection L : ON
73	DOLBY B/ C	O	DOLBY B/C/NR selection L : C
74	REC /PLAY BACK	O	REC/PB selection H : PLAY BACK
75	MPX ON /OFF	O	MPX filter switching H : OFF
76	AVcc		Reference voltage for A/D converter
77	LEVEL R	I	A/D level input Rch
78	LEVEL L	I	A/D level input Lch
79	TEST 1	I	
80	 13 REC (TEST 1)	I	

CIRCUIT DESCRIPTION

OPERATION SPECIFICATIONS MANUAL

1. FEATURES

- ① 1-motor, 1-solenoid, 2-head, single-capstan mechanism
- ② Auto bias
- ③ DPSS
- ④ CD peak search
- ⑤ Dolby B/C HX-Pro
- ⑥ XS8 (XS8)

2. OPERATION SPECIFICATIONS

2.1 Auto bias

Finely adjusts for the optimum bias for each type of tape: normal/chrome/metal. The bias has 16 levels. When the tape type is changed, when a cassette with the recording prevent tab removed is mounted, or when the Auto Bias key is pressed with Auto Bias on (AUTO BIAS lit up), auto bias ends. The display is cleared and the bias is returned to the center value.

(Summary of Operations)

- 10-second no-sound recording
- 500-ms recording with 400-Hz oscillation as standard bias
- Recording for 500 ms per level with 12.5 oscillation shifted in order through all 16 bias levels from the deepest
- Rewind to 400-Hz recording start point
- Playback with 400-Hz playback level sampled for 250 ms
- 12.5-kHz playback level sampled for 250 ms at each bias level and the bias at which 400-Hz playback level ≤ 12.5-kHz playback level taken as optimum bias level
- Rewind to 400-Hz recording start point; end

2.2 XS8 mark (XS8) System control

Combination with amps, receivers, etc. with the XS8 mark (XS8) makes easy bidirectional operation possible. Also, combination with a CD with the XS8 mark (XS8) makes possible CD peak searches.

The 16-bit format is also supported.

- 1) Switch on the AC power while pressing the ►► key. The unit goes into 16-bit format and subsequent communications use the 16-bit format. (The fact that the format is the 16-bit format is backed up.)
- 2) Switch on the AC power while pressing the ◀◀ key. The unit goes into 8-bit format and subsequent communications use the 8-bit format. (The fact that the format is the 8-bit format is backed up.)

- 3) Short KS1 and KR2 with the diode and switch on the power. Communications use the 16-bit format, but if you press the ◀◀ key or ►► key while switching on the power, the format set with the ◀◀ or ►► key takes precedence.

2.3 Counter

This is a digital counter. When the unit is on standby and when the AC power is off, the counter value is backed up.

3. DEFAULT STATES

3.1 Main unit default states

ITEM	STATE
POWER	STANDBY
DOLBY	OFF
MPX FILTER	OFF
COUNTER	0000
DISPLAY	ALL-DISPLAY MODE
AUTO BIAS	OFF
BIAS VALUES	CENTER
TAPE TYPE	NORMAL
SERIAL MODE	NOT SPECIFIED ※

※ When the serial format is not specified, the format is determined by the KS1 → KR2 diode short in the key matrix. (This is set at the factory for 8-bit format.)

3.2 Backed up data

- Power
- Dolby
- Digital counter
- MPX filter
- Bias value and tape type
- Serial mode (8/16 bit)

※ Switching on the AC power while pressing the Stop key initializes the unit.

CIRCUIT DESCRIPTION

4. TEST MODE

Setting method Test 1 Test Pin No. ④, ⑤ (④—▷—⑤)
For main unit

13-second recording

Test Pin No. ⑥, ⑦ (⑥—▷—⑦)

For main unit

(13-second recording)

Shorting either of the two pairs of terminals then switching on the power puts the unit into the corresponding test mode.

- Ending test mode: Pause the unit or turned off the AC power. The contents of test mode are not backed up.

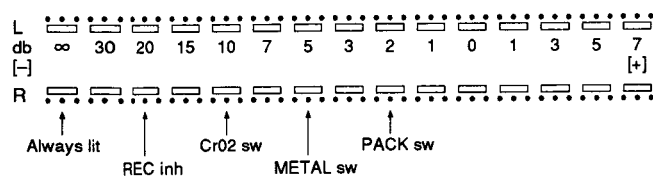
4.1 Test 1 specifications

(1) All-lit display

- The display comes on 500 ms after the power is turned on and for about 2 seconds the entire display lights up. At the end of the all-lit display, key input can be accepted.

(2) Mechanical turned display

The state of each of the mechanical turned is displayed on the left channel of the level meter when the line meter is on. There is no such display on the right channel.

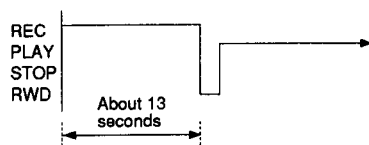


(3) Direct change

Even in play mode, the unit goes directly into record mode.

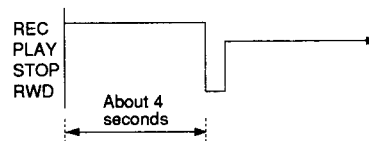
(4) 13-second recording

Only if the 13-second recording pin is shorted and a cassette is mounted, 13 seconds are recorded, then the tape is rewound and those 13 seconds are played back. For a normal tape, the Dolby is off for the recording and play back; for a chrome tape, Dolby C is used, and for metal tape Dolby B is used. The Dolby mode can be changed with the Dolby key. When the unit goes into this mode, it automatically goes into Test 1 mode also.



(5) 4-second recording

When you press the REC key, the unit records for 4 seconds, then automatically rewinds and plays back those 4 seconds. During recording, if you press the REC key again, 4 seconds are recorded from that time. For a normal tape, the Dolby is off for the recording and play back; for a chrome tape, Dolby C is used, and for metal tape Dolby B is used. The Dolby mode can be changed with the Dolby key.



(6) Auto bias

This reduces the setting time. Concretely, the initial ARM time is reduced from 10 seconds to 3 seconds.

4.2 Synchronization test mode (KSJ-0816)

• Synchro test on

If the deck power is on, in any mode, the synchro test on code (E040H) turned on the synchro test.

• Synchro test off

The synchro test off code (E041H) turned off the synchro test and returns the unit to the state it was in before the synchro test. Also, since the backing up is ended, the next time the power is turned on, the default values are set in the backup area.

- ※ When the unit goes into synchro test mode, all the main unit keys are inhibited.

• Main unit key modes

The modes below carry out regular operations

	CODE
FWD PLAY	E020H
FF	E020H
RWD	E022H
STOP	E023H
REC	E024H
PAUSE	E025H
FWD REC	E02CH
CD PEAK SEARCH	E030H
AUTO BIAS	E033H

• Dolby control (code)

Dolby OFF --- E037H

Dolby B ON --- E038H

Dolby C ON --- E039H

CIRCUIT DESCRIPTION

- Tape selector (mechanical tape discrimination leaf turned) enable/disable

Tape Selector On code (E042H)
Enables the mechanical leaf turned

Tape Selector Off code (E043H)
Ignores the mechanical leaf turned
- When changing the tape selector with serial codes, input the above Off code (E043H), then change the selector with one of the following codes.

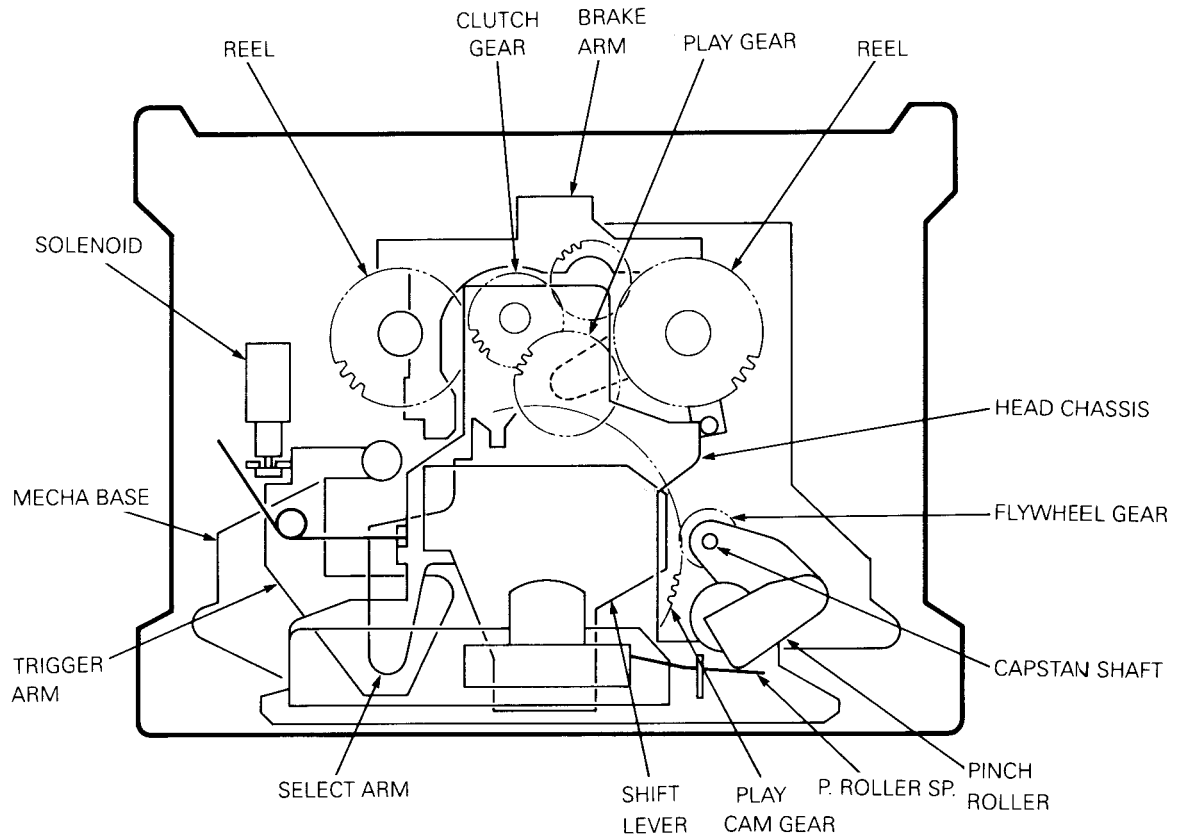
NORMAL (E029H)
CrO2 (E02AH)
METAL (E02BH)
- 4-second recording, 13-second recording special codes

Reel pulse counter reset (E047H)

When the B deck is recording, this code resets the reel pulse counter (to 00).
Reverse rewind (E048H)
Puts the unit into rewind mode in the opposite direction from the current tape travel direction.
The reel pulse counter goes into count down mode.
Reverse play at the reel pulse counter reset position (E049H)
The direction is reversed and playback started at the position where the reel pulse counter was reset (the position where the E047H code was input).
- 4-second recording and 13-second recording operation procedure
 - (1) B Recording (E025H) input
The unit starts recording with the B deck.
 - (2) Reel pulse counter reset (E047H) input
The reel pulse counter is reset to determine the rewind position. The external timer is started and the recording time measured.
 - (3) After the desired time is recorded, rewind (E048H) input
The tape travel direction is reversed and tape rewinding with double-speed play starts.
The reel pulse counter goes into count down mode.
Soon after, the operations in 4 are carried out.
 - (4) Reverse play (E049H) input at reel pulse counter reset position
After the reel pulse counter counts down to the reset position (counter 00), the tape travel direction is reversed and playback starts.

If any other mechanical operation code is input during this series of operations, this operation mode may be ended and normal operations may be impossible.

MECHANISM OPERATION DESCRIPTION



Operation selection system	Logic control system
Driving system	Single motor, belt drive
Head	Record, play back, and erase fixed head
Tape end detection	Reel rotation detection by photosensor
Solenoid	Single solenoid intermittent use

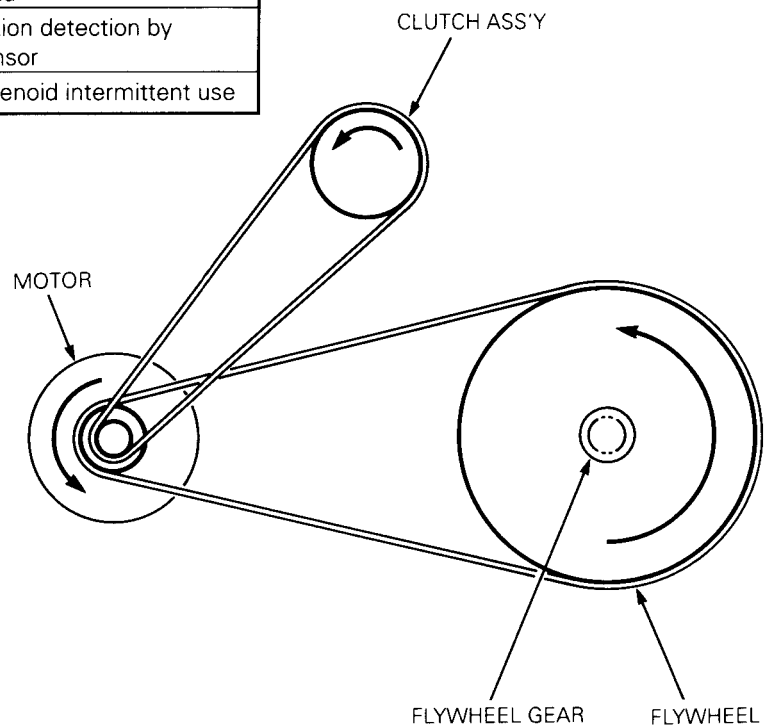


Figure 1 Rotation transmission system

MECHANISM OPERATION DESCRIPTION

1. STOP status

In STOP status, the play cam gear and flywheel gear do not mesh because the trigger arm boss (A) section comes into contact with the stopper (A) section of the play cam gear, and is locked.

2. PLAY operation

- ① When the solenoid is energized, the trigger arm operates and the boss (A) is released from the stopper (A) of the play cam gear.
- ② The play cam gear is pushed by the shift lever in the direction of the arrow ②. The play cam gear starts rotating in the direction of the arrow and meshes with the flywheel gear ③.
- ③ When the flywheel gear and the play cam gear mesh, the play cam gear rotates further, driven by the motor and the flywheel, and stops at the position where the boss (A) of the trigger arm comes into contact with the stopper (B) ④. When the play cam gear is stopped, the flywheel gear and play cam gear are disengaged.

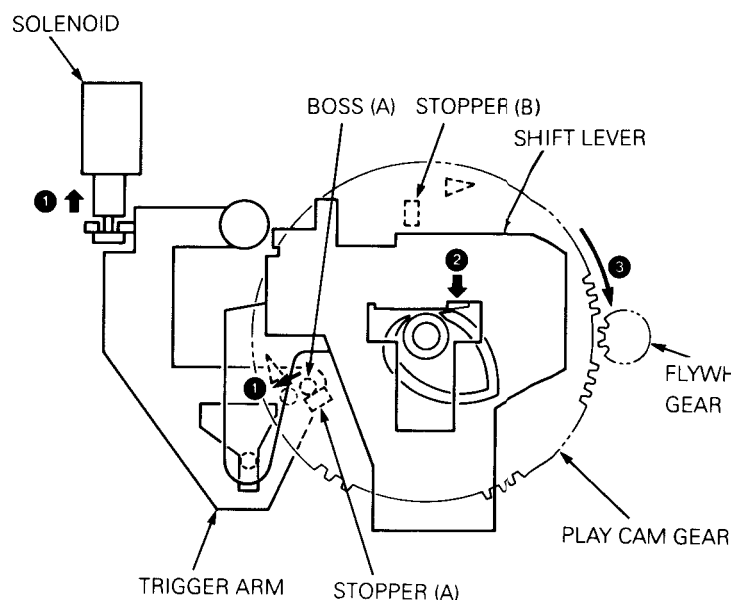


Fig. 1

- ④ The shift lever and select arm connected with the shift lever is moved up by the cam by rotation of the play cam gear until the boss (A) of the trigger arm comes into contact with the stopper (B) as a result of the meshing of the flywheel gear and the play cam gear, and move up with the head chassis section (A) pushed by the select arm (A) section ⑤.
- ⑤ When the shift lever moves up, the brake arm is pushed up by the shift lever and is released from the reel ⑥.

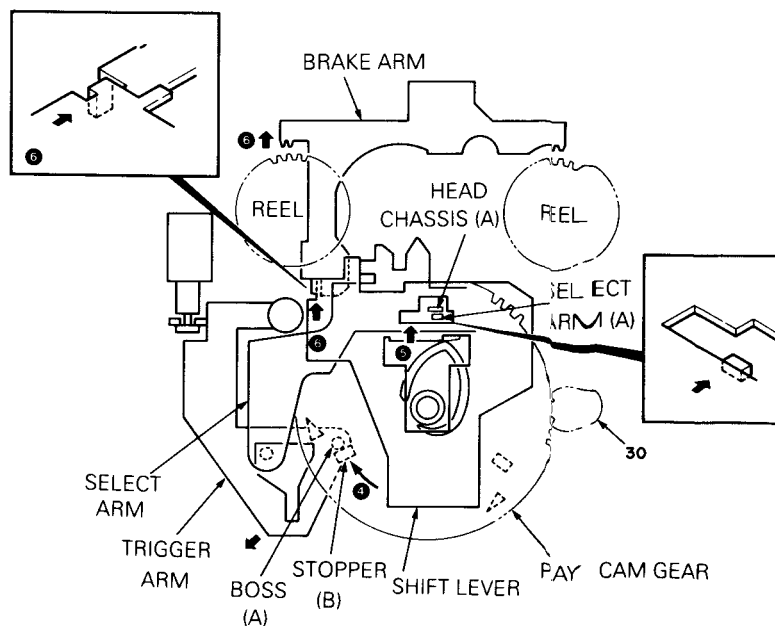


Fig. 2

-
- Diagram illustrating the head assembly components and their operation:
- PLAY GEAR**: A gear mechanism (labeled 21) that interacts with the reel assembly.
 - REEL ASS'Y**: The reel assembly, shown with a dashed line indicating its position and a curved arrow indicating rotation.
 - CAPSTAN SHAFT**: The shaft driving the capstan roller.
 - PINCH ROLLER**: The roller that guides the tape between the reel and the capstan.
 - P. ROLLER SP.**: The pressure roller support, indicated by a plus sign (+) in a circle.
 - HEAD CHASSIS**: The main structural frame supporting the head assembly.

Diagram illustrating the timing mechanism components and their assembly:

- SOLENOID**: The actuator that triggers the timing mechanism.
- BOSS (A)**: A component that interacts with the flywheel gear.
- FLYWHEEL GEAR**: A large gear that rotates with the flywheel.
- STOPPER (A)**: A component that limits the rotation of the flywheel gear.
- PLAY (A) M GEAR**: A gear that provides a specific amount of play or clearance.
- STOPPER (B)**: A component that limits the rotation of the flywheel gear.
- 10**: A small component or pin.
- 11**: A small component or pin.
- 12**: A small component or pin.
- 19**: A component or part of the mechanism.

13

MECHANISM OPERATION DESCRIPTION

3. Fast forward/rewind operations

By energizing the solenoid according to the timing shown in the timing chart, play, fast forward (cue), and rewind (review) are selected. With the play cam gear in the same rotational position, each operation starts according to the changes in position of the select arm.

① Fast forward (cue)

When the solenoid is energized, the trigger arm is pulled in the direction of the arrow **A**, and the select arm moves to point **B**. then, the shift lever is moved up by the cam by rotation of the play cam gear **13**, and the select arm connected with it does not go right along the guide of the mechanism base by the energizing of the solenoid being held for up to 450 ms (until it comes into contact with the left side of the clutch assembly boss), but goes to the position of F.F **C** point **14**. This causes the clutch assembly to be pushed to the right by the F.F **D** point, and starts the fast forward operation by the F.F gear and the clutch gear **15** engaging.

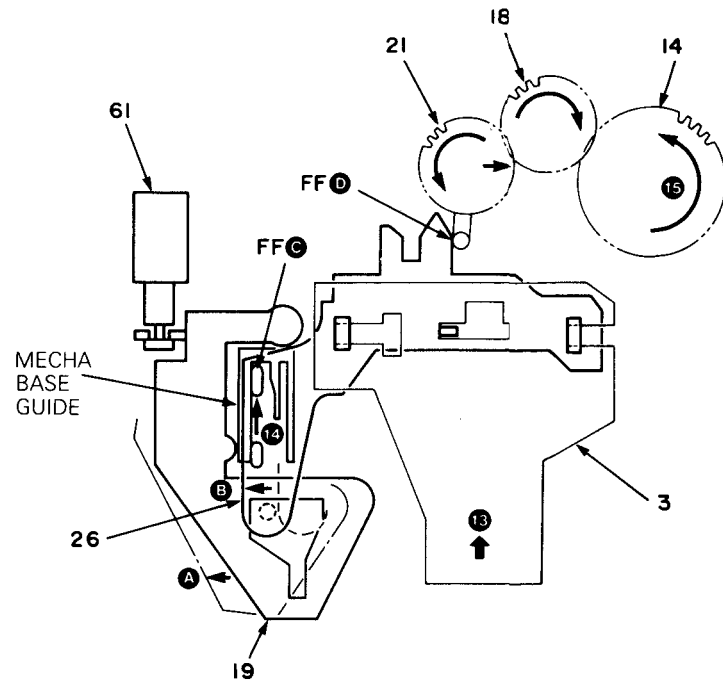


Fig. 5

② Rewind, (review)

By holding the energizing of the solenoid for up to 250 ms, the select arm goes to the **E** point, where it comes into contact with the guide of the mechanism base, but does not go right, and goes to the position of the REW **F** point along the guide of the mechanism base **16**. Then, the REW **G** point pushes the clutch assembly to the left, and the rewind operation starts by the reel (S) and the clutch gear **17** engaging.

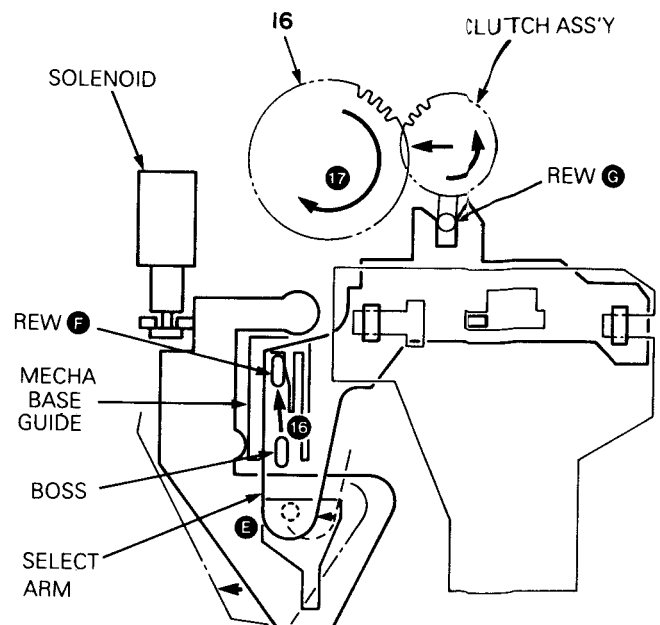


Fig. 6

MECHANISM OPERATION DESCRIPTION

- * When in the fast forward/rewind mode, the head chassis moves to the program selecting position as it shares the play cam gear. The difference between play and fast forward/rewind is obtained by moving the select arm right and left. (See * in Figure 5.)

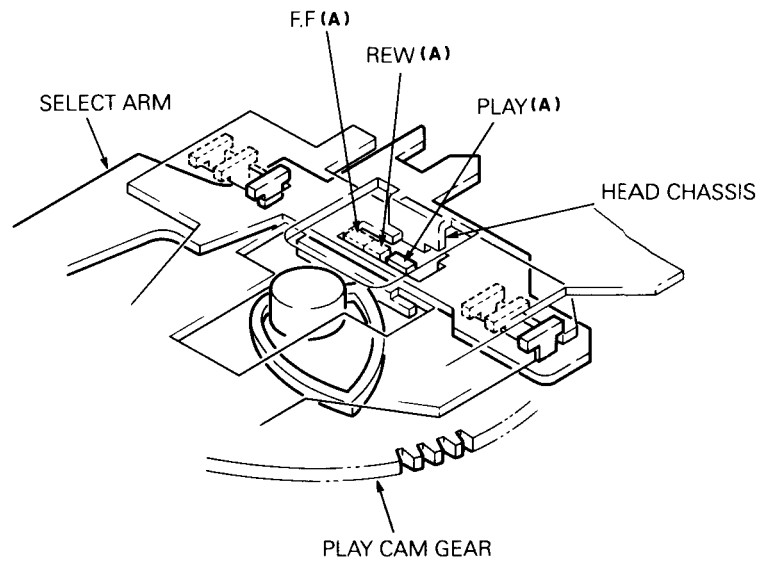


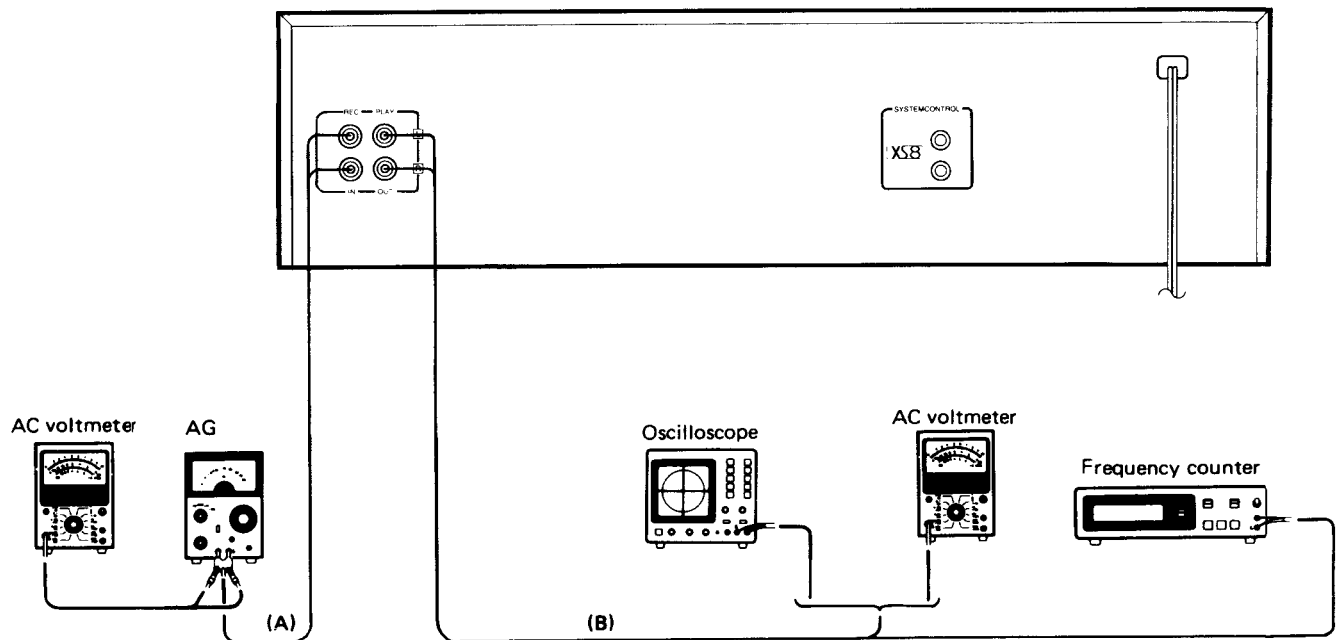
Fig. 7

ADJUSTMENT

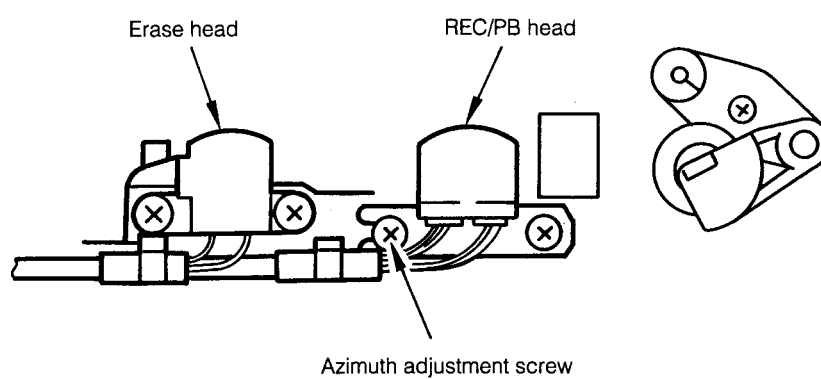
No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	CASSETTE TAPE DECK SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
Unless otherwise specified; each switch should be set as follows: TAPE: NORMAL, DOLBY: OFF, INPUT: LINE I. Cassette mechanism section (REC/PB head adjustment)							0 dBs = 0.775 V
[1]	Demagnetization and cleaning	—	—	Power OFF, demagnetization, cleaning play	REC/PB head, erase head, capstan, pinch roller	Demagnetize the REC/PB head by head eraser. Clean the REC/PB head, erase head, capstan and pinch roller with a cotton swab immersed in alcohol.	
[2]	REC/PB head azimuth	MTT-114, TCC-153 SCC-1727 10 kHz, -10 dB	(B)	PLAY	Azimuth adjustment screw	In a setting where the output is maximized, adjust the azimuth adjustment screw so that the Lissajous figure appearing on the oscilloscope screen comes near to a line slanted 45°. Note: The head should be installed in such a manner that it approaches the tape face.	(a)
II. PC board adjustment (X26-135: KX-3060)							
<1>	Tape speed	MTT-111 TCC-100 SCC-1727 3 kHz, -4 dB	(B)	PLAY	VR71	Adjust so that frequency is 3 kHz at the center of the tape.	
<2>	Playback level	MTT-150 400 Hz (200 nwb/m)	(B)	PLAY	VR1 (L) VR2 (R)	Adjust so that LINE OUT is -1.2 dBs.	
		MTT-256 SCC-1727 315 Hz (160 nwb/m)				Adjust so that LINE OUT is -4.0 dBs.	
		MTT-256U, TCC-160 315 Hz (250 nwb/m)				Adjust so that LINE OUT is 0 dBs.	
<3>	Bias current	(A) 1 kHz, -30 dBs 10 kHz, -30 dBs	(B)	Adjust the REC VR (LEVEL, BALANCE) so that the REC monitor output is -20 dBs at 1 kHz, and record and playback 1 kHz and 10 kHz alternately.	VR31(L) VR32(R)	Record 1 kHz and 10 kHz alternately, and adjust each bias current adjustment VR so that the 10 kHz playback level is +0.5 dB against 1 kHz.	
<4>	Recording level	(A) 1 kHz, -30 dBs	(B)	Record and play back 1 kHz with the situation of above <3> kept as it is.	VR21 (L) VR22 (R)	Adjust the variable resistors so that a playback level of -20 dB is obtained.	
<5>	FL meter 0 dB	(A) 1 kHz, -10 dBs	—	REC PAUSE adjust REC VR (LEVEL, BALANCE) so that the monitor output is 0 dBs at 1 kHz.	VR95(R)	Adjust to the same level as that to L-channel.	
Note: On item <2> in "II. PC board adjustment"							
Although 3 kinds of tapes are set forth for the playback level adjustment, the use of one tape suffices for adjustment. Here is meant no necessity for the use of all these 3 kinds of tapes. Other than the abovementioned tapes, when a test tape equal in magnetic flux and frequency is available, the adjustment is feasible with this test tape by making the playback output suited to the specified output level of this tape in agreement with the adjustment method.							

ADJUSTMENT

Measurement Equipment Connections:



(a) Azimuth adjustment screw

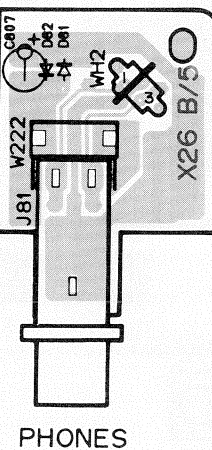
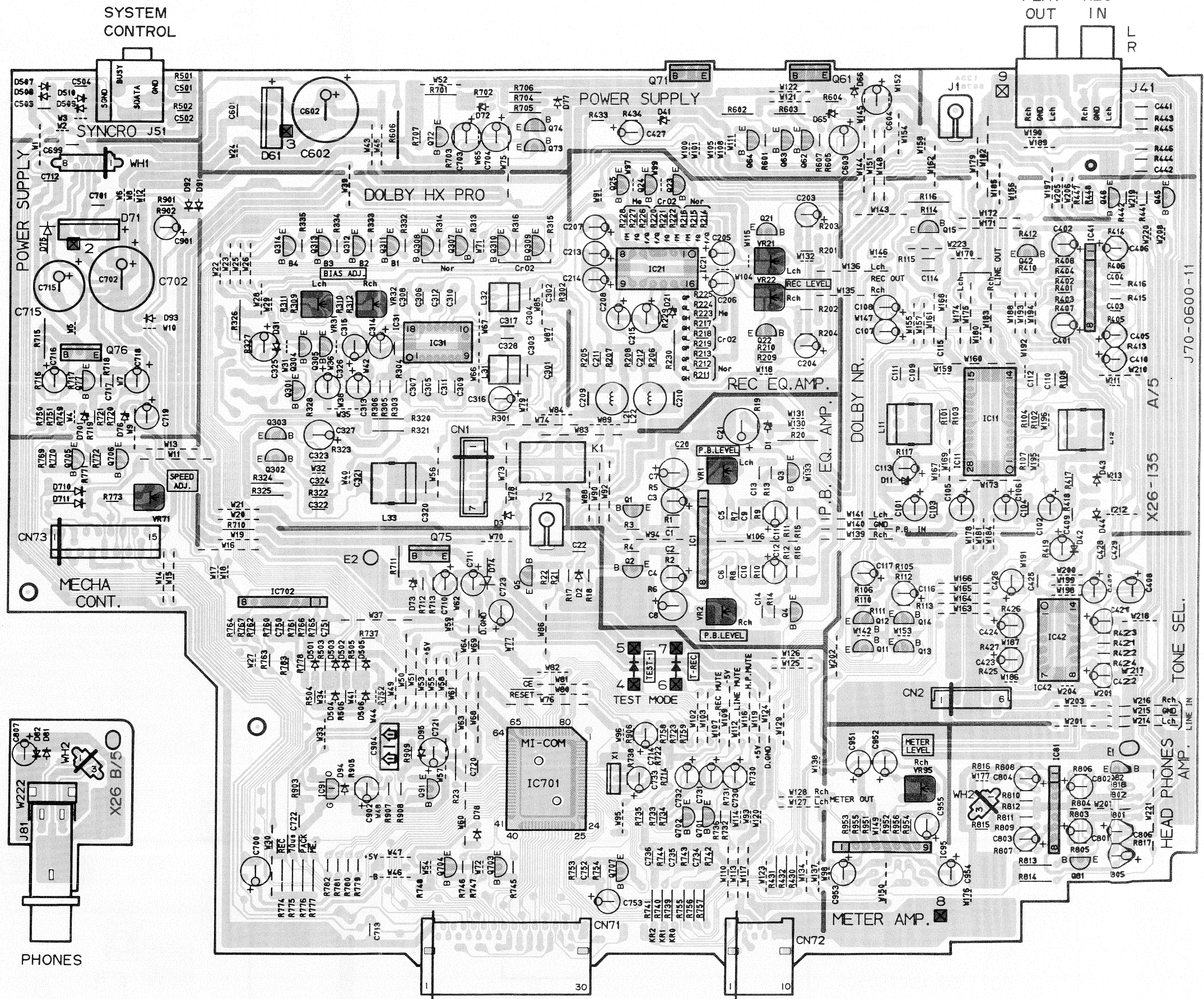
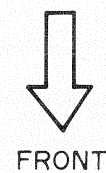
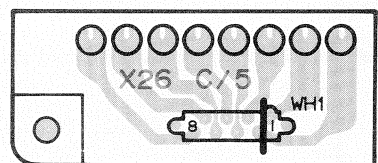
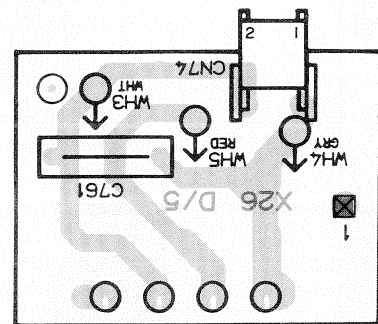
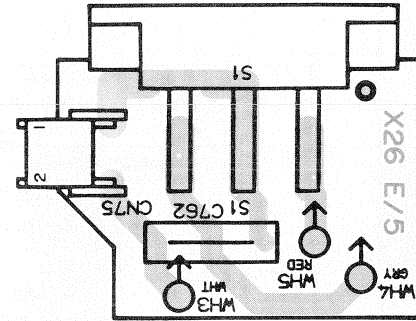


AJUSTES

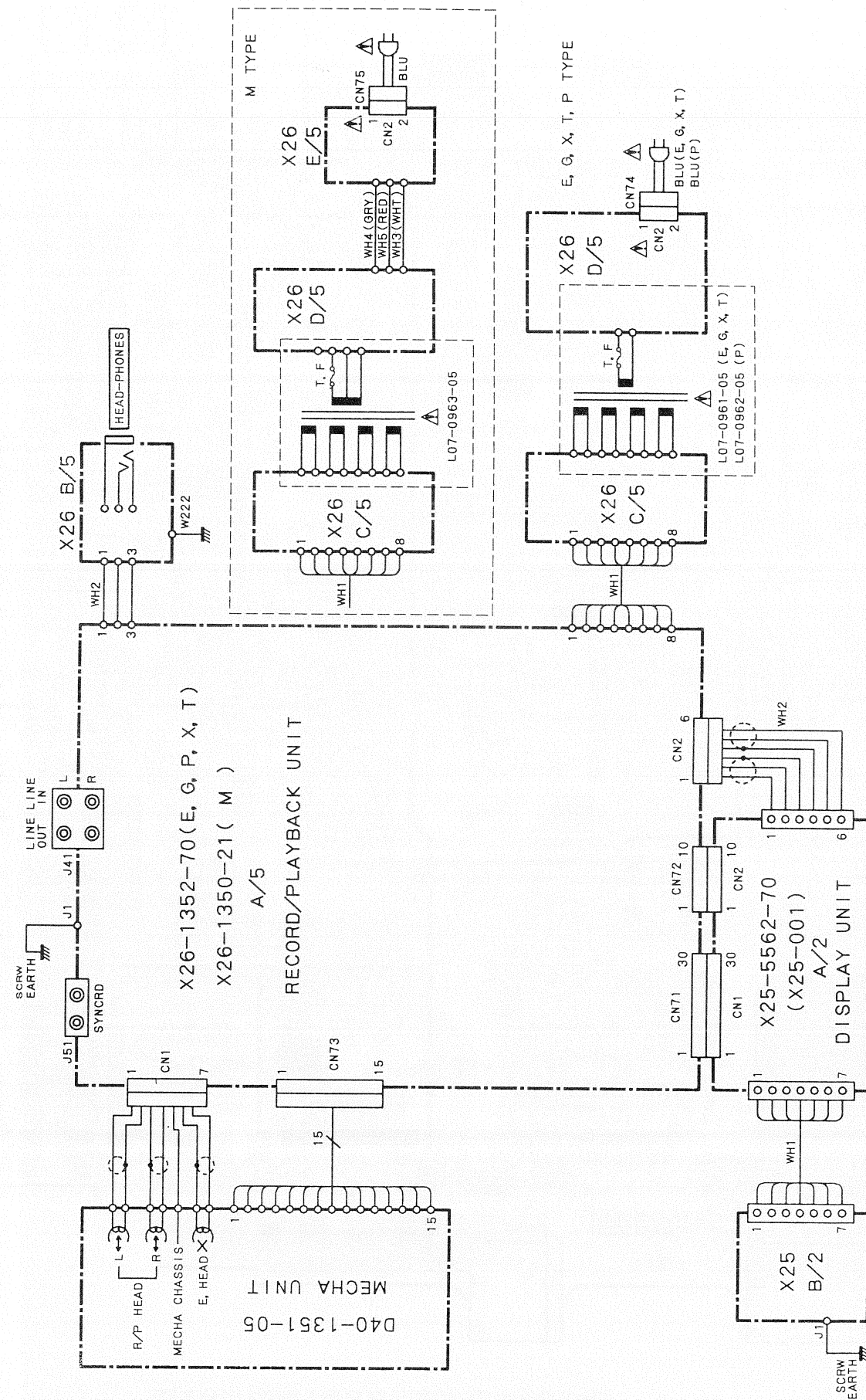
Núm.	ITEM	AJUSTES DE ENTRADA	AJUSTES DE SALIDA	AJUSTES DEL DECK DE CASETES	PUNTOS DE ALINEACIÓN	ALINEACIÓN PARA	FIG.
A menos que se especifique otra cosa, ajuste los controles de la forma siguiente: TAPE, NORMAL, DOLBY: OFF, INPUT., LINE I. Sección del mecanismo del casete (Ajuste de la cabeza grabadora/reproductora)							0 dBs = 0.775 V
[1]	Desmagnetización y limpieza	—	—	Desconexión de la alimentación, desmagnetización, reproducción para limpieza	Cabeza grabadora/reproductora, cabeza borradora, eje de arrastre, rodillo compresor	Desmagnetice la cabeza grabadora/reproductora con un borrador de cabezas. Limpie la cabeza grabadora/reproductora, la cabeza grabadora, el eje de arrastre, y el rodillo compresor con palillo de cabeza de algodón humedecido en alcohol.	
[2]	Acimut de la cabeza grabadora/reproductora	MTT-114 TCC-153 SCC-1727 10 kHz, -10 dB	(B)	Reproducción	Tornillo de ajuste del acimut	En un ajuste en el que la salida esté maximizada, ajuste el tornillo de ajuste del acimut de forma que la figura de Lissajous que aparece en la pantalla del osciloscopio se acerque a 45. Nota: La cabeza deberá instalarse de forma que se acerque a la cara de la cinta.	(a)
II. Ajuste de la tarjeta de circuito impreso (X26-135: KX-3060)							
<1>	Velocidad de la cinta	MTT-111 TCC-100 SCC-1727 3 kHz, -4 dB	(B)	Reproducción	VR-71	Ajuste de forma que la frecuencia sea de 3 kHz en el centro de la cinta.	
<2>	Nivel de reproducción	MTT-150 400 Hz (200 nwb/m)	(B)	Reproducción	VR1 (L) VR2 (R)	Ajuste de forma que LINE OUT quede a -1,2 dBs.	
		MTT-256 SCC-1727 315 Hz (160nwb/m)				Ajuste de forma que LINE OUT quede a -4,0s.	
		MTT-256U, TCC160, 315 Hz (-50nwb/m)				Ajuste de forma que LINEOUT quede a 0 dBs.	
<3>	Corriente de polarización	(A) 1 kHz, -30dBs 10 kHz, -30dBs	(B)	Ajuste REC VR (LEVEL BALANCE) de forma que la salida de verificación de grabación sea de -20 dBs a 1 kHz, y grabe alternativamente 1 y 10 kHz.	VR31 (L) VR32 (R)	Grabe alternativamente 1kHz y 10 kHz, y ajuste cada VR de ajuste de la corriente de polarización de forma que el nivel de reproducción sea de +,5 dB con 1 kHz.	
<4>	Nivel de grabación	(A) 1 kHz, -30 dBs	(B)	Grabe y reproduzca 1 kHz con la situación de anterior.	VR21 (L) VR22 (R)	Ajuste los resistores variables hasta obtener un nivel de reproducción de -20 dBs	
<5>	Medidor fluorescente de 0 dB	(A) 1 kHz, -10 dBs	(B)	GRABACION EN PAUSA Ajuste REC VR (LEVEL, BALANCE) de forma que la salida del monitor sea de 0 dBs a 1 kHz.	VR95 (R)	Ajuste al mismo nivel que el canal izquierdo.	
Nota: En el ítem <2> de "II. Ajuste de la tarjeta de circuito impreso".							
Aunque existen tres tipos de cintas para el ajuste del nivel de reproducción, la utilización una de estas cintas será suficiente para el ajuste. No es necesario utilizar los tres tipos de cintas. En caso de otros tipos de cintas no mencionados, cuando se disponga de una cinta de flujo magnético y frecuencia iguales, podrá realizarse este ajuste con esta cinta haciendo que la salida de reproducción se adecúe al nivel de salida especificado de esta cinta de acuerdo con el método de ajuste.							

PC BOARD (Component side view) CASSETTE UNIT (X26-135X-XX)

AC110-120V~ AC220-240V~

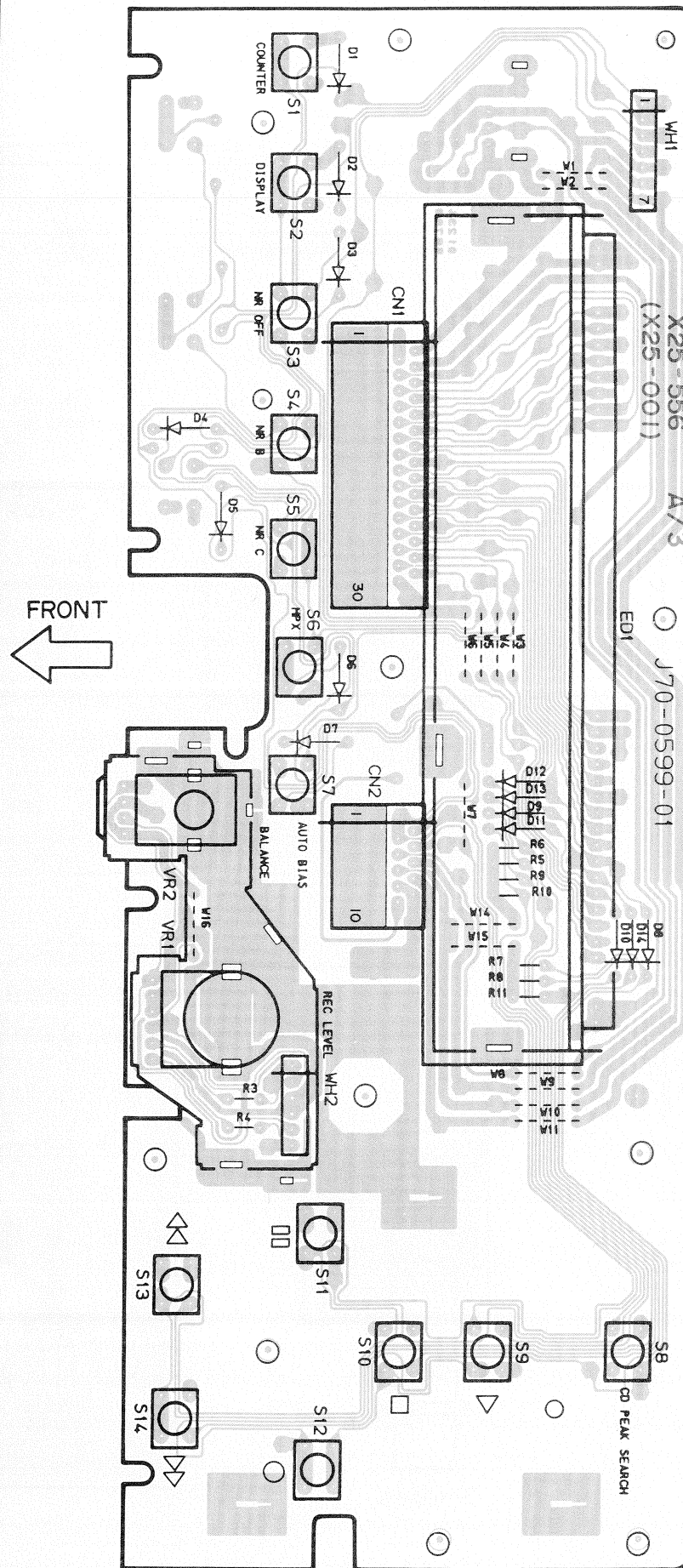


WIRING DIAGRAM

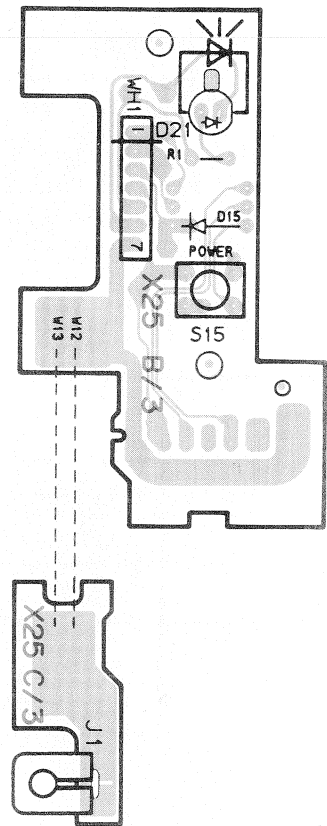


PC BOARD (Component side view)

DISPLAY UNIT X25-5562-70 (X25-001)

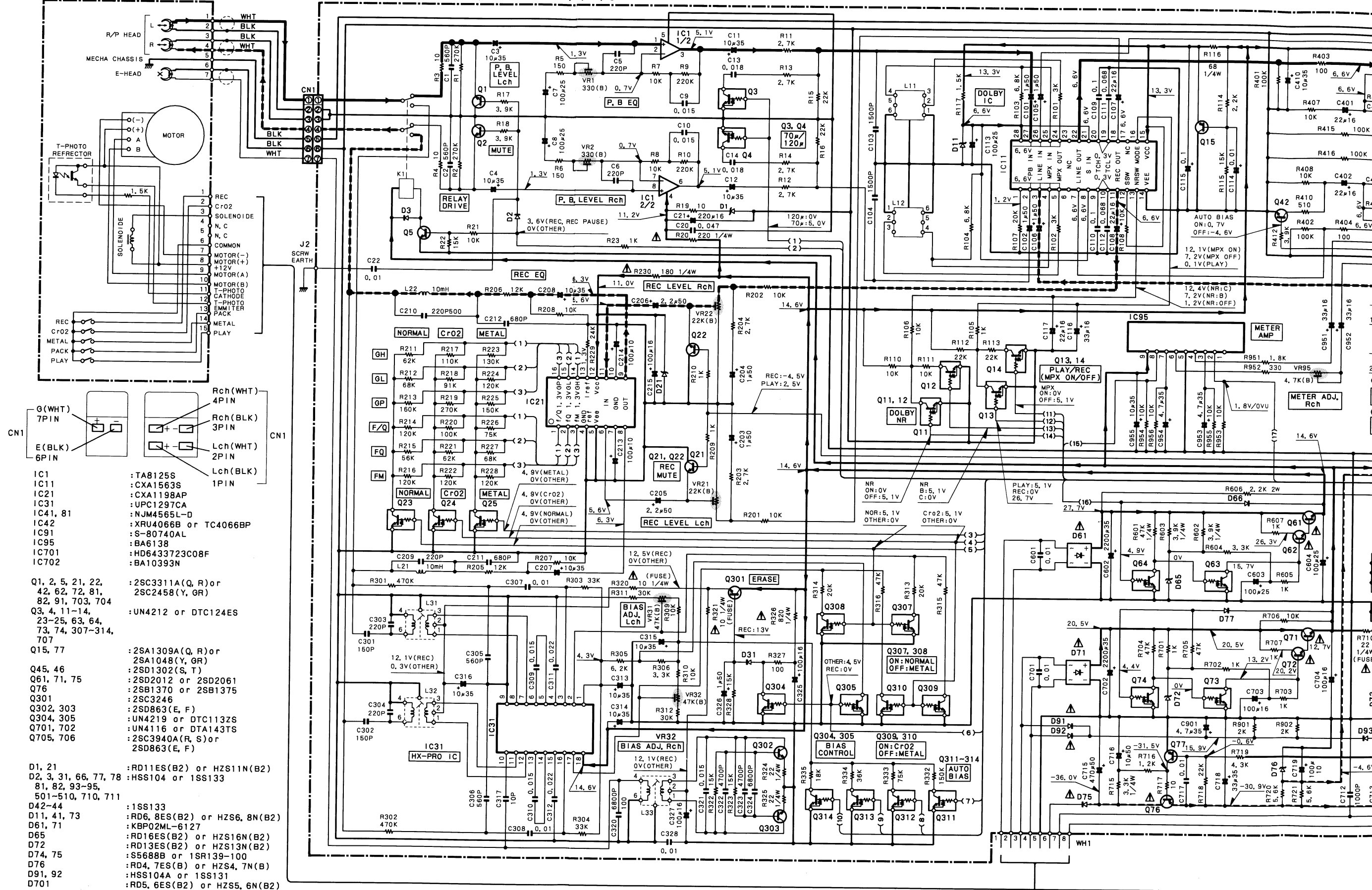


Refer to the schematic diagram for the values of resistors and capacitors.



D40-1351-05

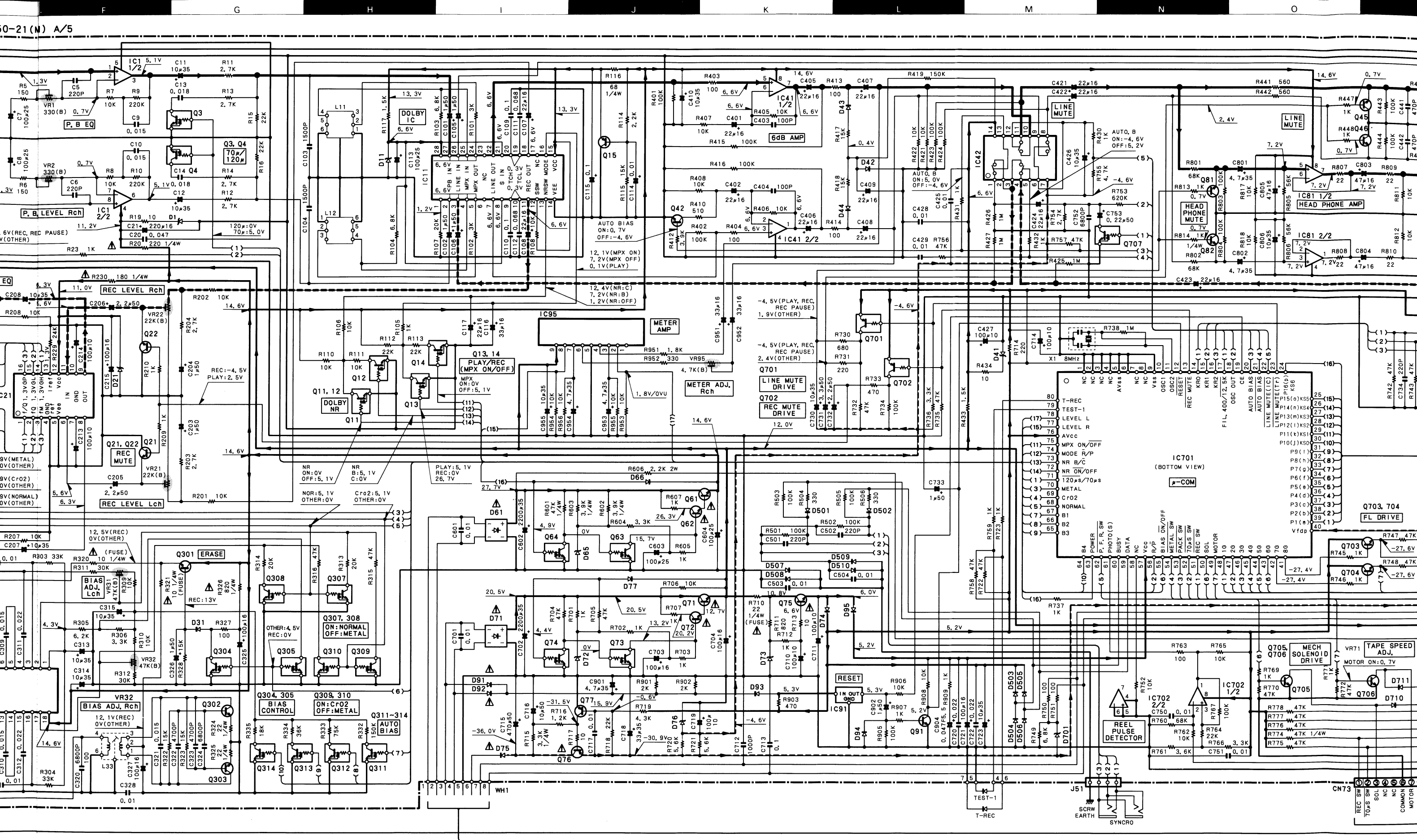
X26-1352-70(E, G, P, X, T), X26-1350-21(M) A/5



DC voltages are as measured with a high impedance voltmeter with a cassette loaded at playback mode. Values may vary slightly due to variations between individual instruments or/and units. Bias circuit DC voltages are as measured while in the record mode.

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance, une cassette étant insérée en mode de lecture. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels. Les tensions c.c. du circuit de polarité doivent être mesurées, l'appareil étant en mode d'enregistrement.

Die angege-
Cassette i-
nungsme-
aufgrund v-
oder Gerä-
nungswe-
hame-Betri-



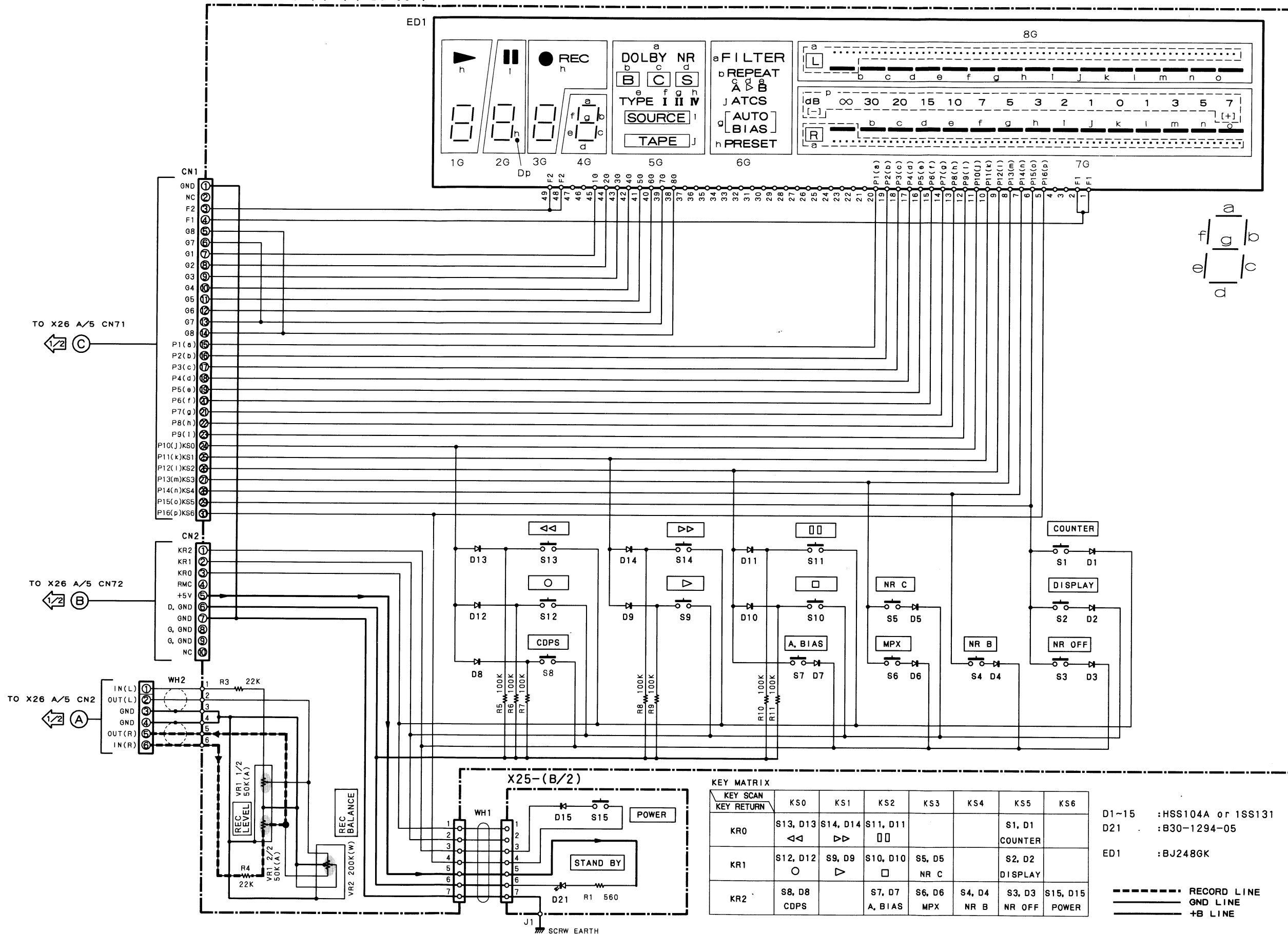
DC voltages are as measured with a high impedance voltmeter with a cassette loaded at playback mode. Values may vary slightly due to variations between individual instruments or/and units. Bias circuit DC voltages are as measured while in the record mode.

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance, une cassette étant insérée en mode du lecture. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels. Les tensions c.c. du circuit de polarité doivent être mesurées, l'appareil étant en mode d'enregistrement.

Die angegebenen Gleichspannungswerte wurden bei eingesetzter Cassette in der Wiedergabe mit einem hochohmigen Spannungsmesser gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig. Die angegebenen Gleichspannungswerte der Vomagnetisierungsschaltung wurden in der Aufnahme-Betriebsart gemessen.

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

Dolby noise reduction manufactured under Licensing Corporation. "DOLBY", the double-D marks of Dolby Laboratory



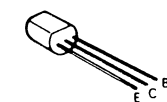
DC voltages are as measured with a high impedance voltmeter with a cassette loaded at playback mode. Values may vary slightly due to variations between individual instruments or/and units. Bias circuit DC voltages are as measured while in the record mode.

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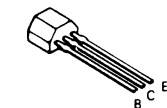
Die angegebenen Gleichspannungswerte wurden bei eingesetzter Cassette in der Wiedergabe mit einem hochohmigen Spannungsmesser gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig. Die angegebenen Gleichspannungswerte der Vomagnetisierungsschaltung wurden in der Aufnahme-Betriebsart gemessen.

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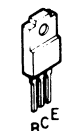
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2SC3940A
2SD1302
2SD863



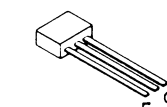
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DTC124ES
UN4116
2SA1048
2SC2458



2SB1370
2SD2061



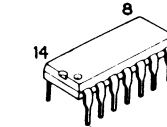
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UN4219
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2SC3311A



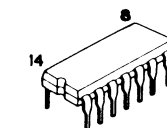
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2SD2012



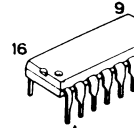
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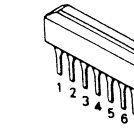
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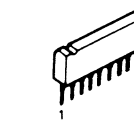
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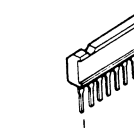
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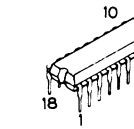
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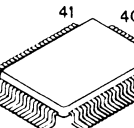
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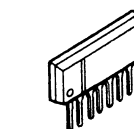
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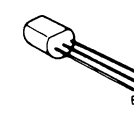
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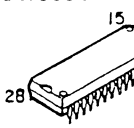
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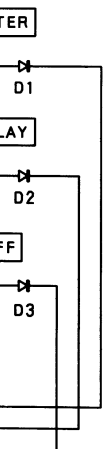
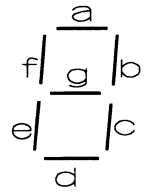
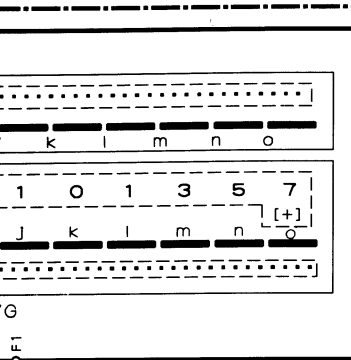


S-80740AL

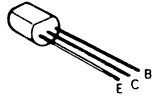


CXA1563S

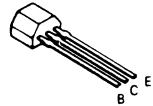




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2SC3940A
2SD1302
2SD863



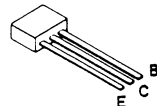
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DTC124ES
UN4116
2SA1048
2SC2458



2SB1370
2SD2061



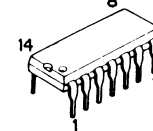
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UN4219
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2SC3311A



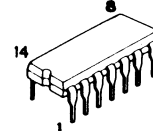
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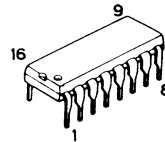
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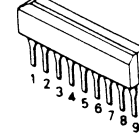
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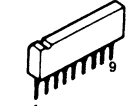
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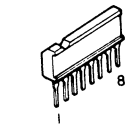
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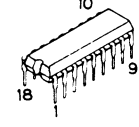
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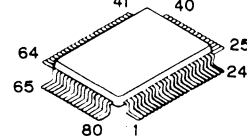
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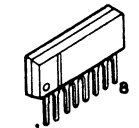
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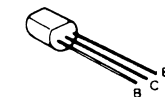
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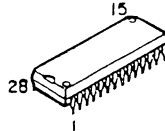
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S-80740AL



CXA1563S

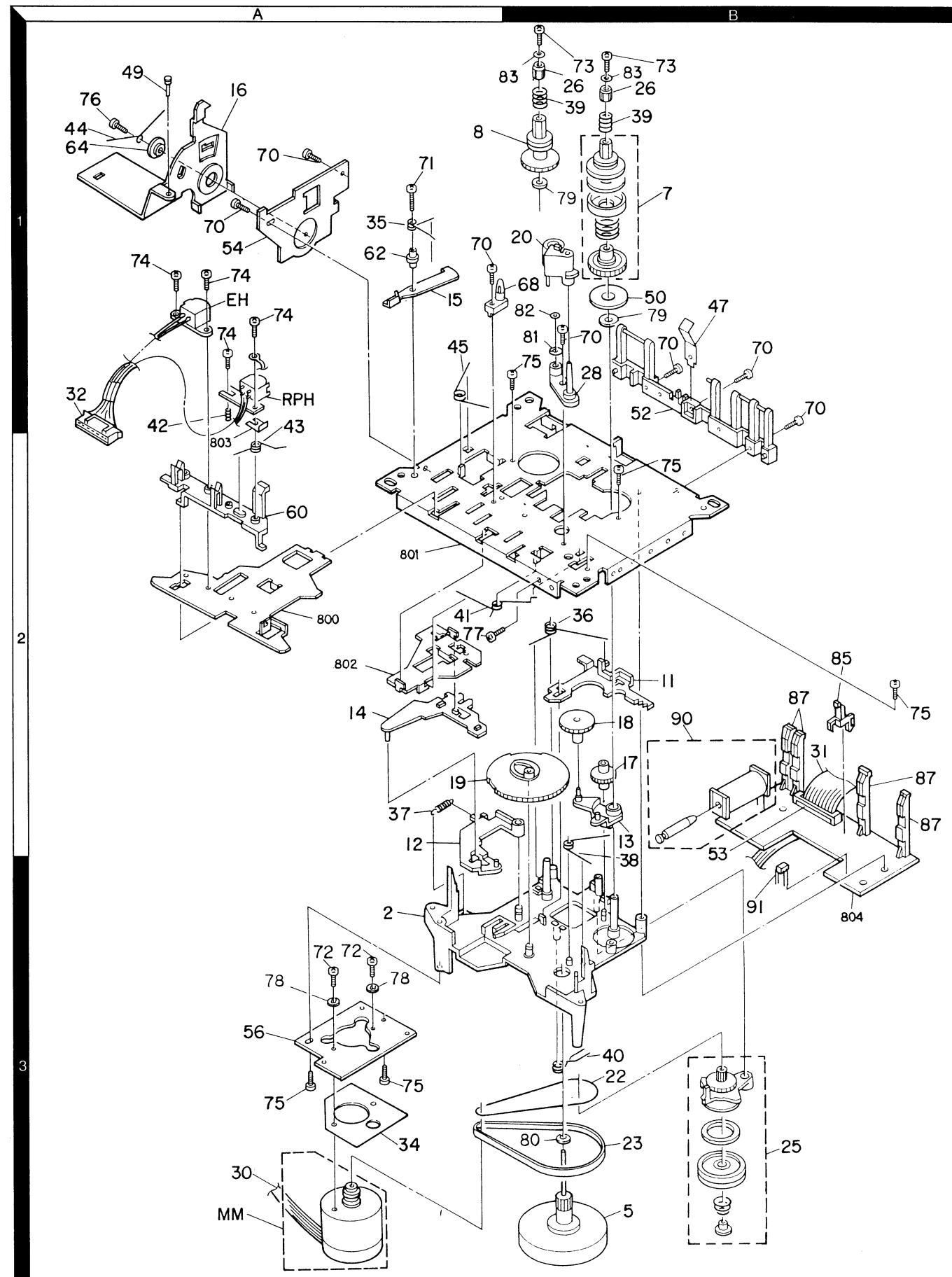


Dolby noise reduction and HX Pro headroom extension manufactured under license from Dolby Laboratories Licensing Corporation. HX Pro originated by Bang & Olufsen. "DOLBY", the double-D symbol and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.

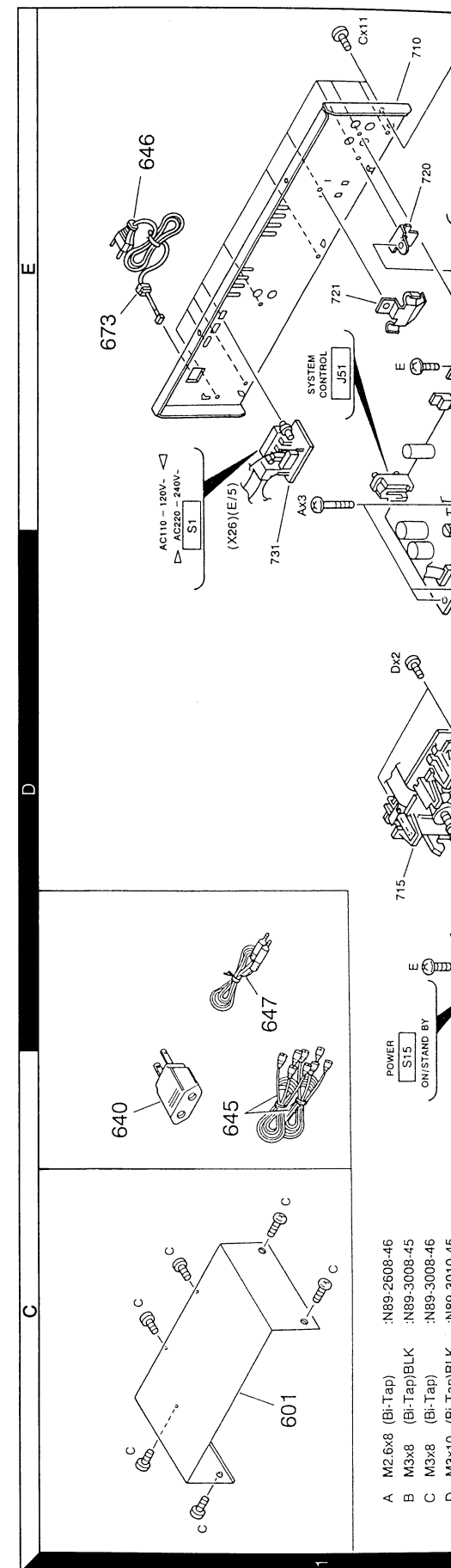
2/2

KX-3060
KENWOOD

EXPLODED VIEW (MECHANISM UNIT)



Parts with the exploded numbers larger than 700 are not supplied.

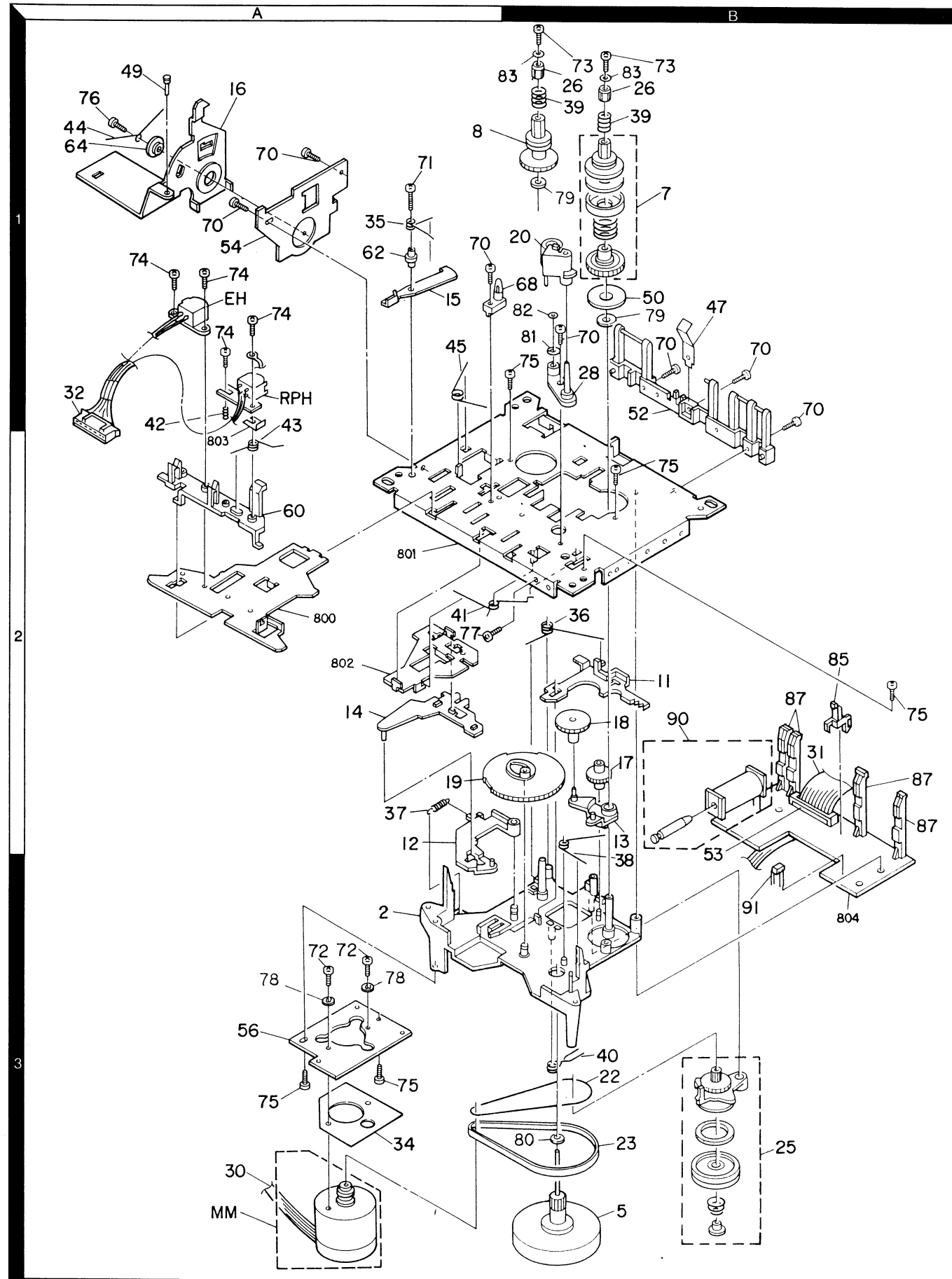


A	M2.6x8 (Bi-Tap)	:N89-2608-46
B	M3x8 (Bi-Tap)BLK	:N89-3008-45
C	M3x8 (Bi-Tap)	:N89-3008-46
D	M2x10 (Bi-Tap)BLK	:N89-3010-45

ce safety critical components. Recommended parts (refer to technical components. To re-ge-current or resistance exposed parts are acceptable) before the appliance is

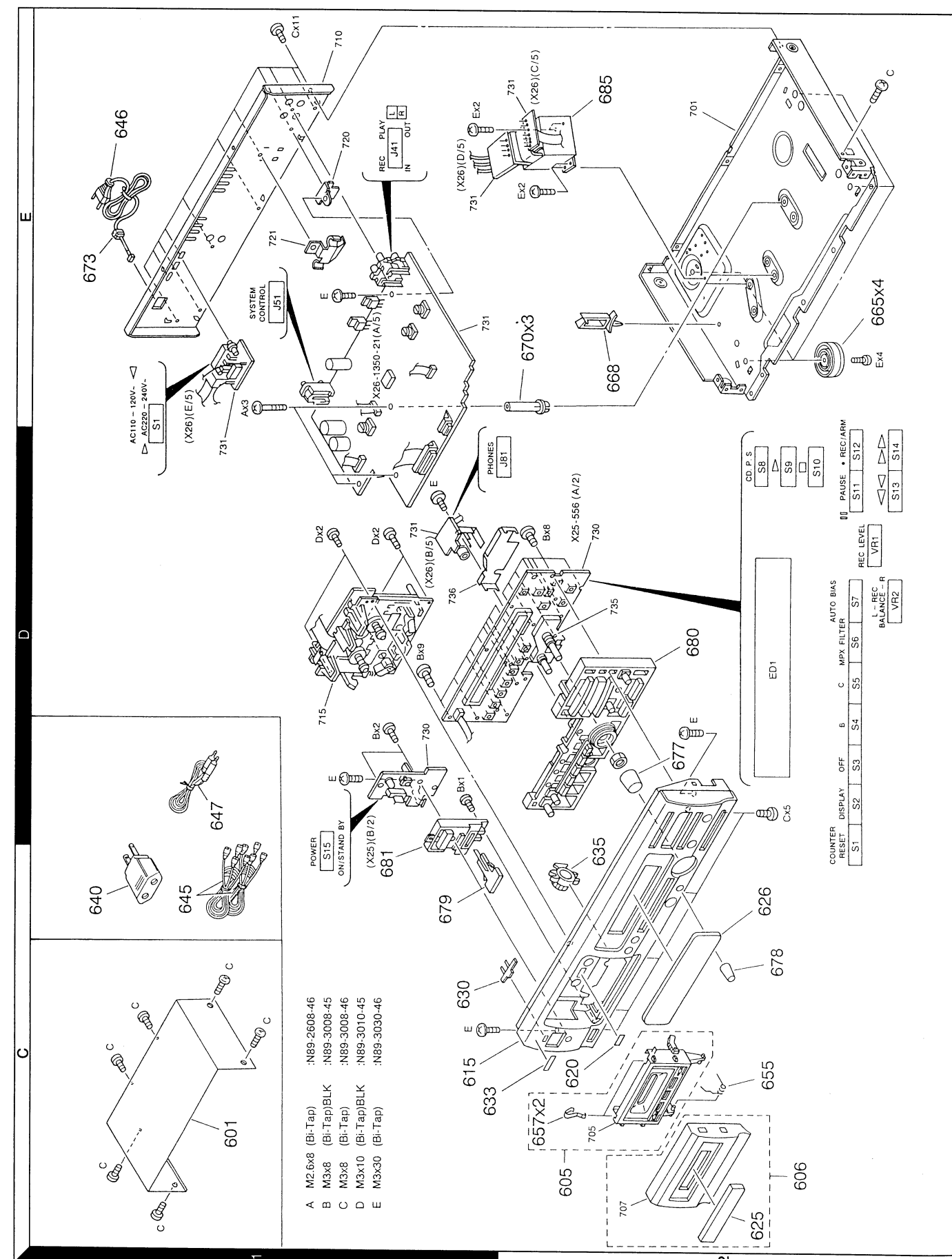
Y26-3912-70

EXPLODED VIEW (MECHANISM UNIT)



Parts with the exploded numbers larger than 700 are not supplied.

EXPLODED VIEW (UNIT)



Parts with exploded numbers larger than 700 are not supplied.

PARTS LIST

* New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnés dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕 向	Re- marks 備考
KX-3060						
601	1C		A01-3136-01	METALLIC CABINET		
605	2C		A53-1371-23	CASSETTE HOLDER ASSY		
606	2C	*	A53-1475-13	CASSETTE LID ASSY		
615	1C	*	A60-0595-01	PANEL		
620	2C		B03-1691-04	DRESSING SEAL		
625	2C		B10-2018-04	FRONT GLASS (LID)		
626	2C		B10-2019-04	FRONT GLASS (FRONT)		
630	1C	*	B12-0239-04	INDICATOR		
633	1C		B43-0287-04	KENWOOD BADGE		
-			B46-0096-53	WARRANTY CARD	X	
-			B46-0121-33	WARRANTY CARD	P	
-			B46-0310-03	WARRANTY CARD	EGT	
-			B58-0945-03	CAUTION CARD	T	
-			B58-0965-13	CAUTION CARD	PXT	
-			B58-0966-13	CAUTION CARD	EM	
-			B58-0970-13	CAUTION CARD	G	
-		*	B60-1651-00	INSTRUCTION MANUAL (ENGLISH)	EPMT	
-		*	B60-1652-00	INSTRUCTION MANUAL (DUT,ITA)	E	
-		*	B60-1653-00	INSTRUCTION MANUAL (FRENCH)	EP	
-		*	B60-1654-00	INSTRUCTION MANUAL (SPANISH)	EM	
-		*	B60-1655-00	INSTRUCTION MANUAL (CHINESE)	M	
-		*	B60-1816-00	INSTRUCTION MANUAL (GERMAN)	EG	
-		*	B60-1817-00	INSTRUCTION MANUAL (TAIWANESE)	M	
635	2C		D39-0314-05	DAMPER		
△ 640	1C		E03-0115-05	AC PLUG ADAPTER	M	
645	1C		E30-0505-05	AUDIO CORD		
△ 646	1E		E30-2592-15	AC POWER CORD	EGM	
△ 646	1E		E30-2650-05	AC POWER CORD	P	
△ 646	1E		E30-2717-05	AC POWER CORD	X	
△ 646	1E		E30-2721-05	AC POWER CORD	T	
647	1D		E30-2733-05	CORD WITH PLUG		
655	2C	*	G01-3689-14	TORSION COIL SPRING		
657	2C		G02-1008-04	FLAT SPRING		
-			H10-5489-02	POLYSTYRENE FOAMED FIXTURE	EGPMX	
-			H10-5490-02	POLYSTYRENE FOAMED FIXTURE	EGPMX	
-			H10-5491-02	POLYSTYRENE FOAMED FIXTURE	T	
-			H10-5492-02	POLYSTYRENE FOAMED FIXTURE	T	
-			H12-2229-04	PACKING FIXTURE		
-			H13-0116-04	CARTON BOARD	X	
-			H20-0586-04	PROTECTION COVER	M	
-			H25-0232-04	PROTECTION BAG (235X350X0.03)	EGPMX	
-			H25-0382-04	PROTECTION BAG	EGPXT	
-			H25-0651-04	PROTECTION BAG (0232 PRINTED)	T	
-			H50-1032-04	ITEM CARTON CASE	EGPMX	
-			H50-1033-04	ITEM CARTON CASE	T	
665	2E		J02-1034-05	FOOT		
668	2E		J11-0055-05	WIRE CLAMPER		
670	2E		J19-3703-04	UNIT HOLDER		
△ 673	1E		J42-0083-05	POWER CORD BUSHING		
677	2D		K29-4384-04	KNOB (REC LEVEL)		

L: Scandinavia

K: USA

P: Canada

R: Mexico

Y: PX (Far East, Hawaii)

T: England

E: Europe

G: Germany

Y: AAFES (Europe)

X: Australia

M: Other Areas

△ indicates safety critical components

PARTS LIST

× New Parts

Parts without Parts No. are not supplied.

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678	2C		K29-4440-04	KNOB (REC BALANCE)		
679	1C		K29-5914-04	KNOB (EJECT)		
680	2D	*	K29-5945-02	KNOB (FUNCTION)		
681	1C	*	K29-5946-03	KNOB (POWER)		
△ 685	2E		L07-0961-05	POWER TRANSFORMER	EGXT	
△ 685	2E	*	L07-0962-15	POWER TRANSFORMER	P	
△ 685	2E		L07-0963-05	POWER TRANSFORMER	M	
DISPLAY UNIT X25-5562-70 (X25-001)						
D21			B30-1294-05	LED		
VR1			R31-0009-05	VARIABLE RESISTOR		
VR2			R31-0008-05	VARIABLE RESISTOR		
S1 -15			S40-1064-05	PUSH SWITCH		
D1 -15			HSS104A	DIODE		
D1 -15			1SS131	DIODE		
ED1			BJ248GK	INDICATOR TUBE		
CASSETTE UNIT (X26-1352-70: E, G, P, X, T, 0-21: M)						
C1 ,2			CK45FB1H561K	CERAMIC 560PF K		
C3 ,4			CE04KW1V100M	ELECTRO 10UF 35WV		
C5 ,6			CC45FSL1H221J	CERAMIC 220PF J		
C7 ,8			CE04KW1E101M	ELECTRO 100UF 25WV		
C9 ,10			CF92FV1H153J	MF 0.015UF J		
C11 ,12			CE04KW1V100M	ELECTRO 10UF 35WV		
C13 ,14			CF92FV1H183J	MF 0.018UF J		
C20			CF92FV1H473J	MF 0.047UF J		
C21			CE04KW1C221M	ELECTRO 220UF 16WV		
C22			CK45FF1H103Z	CERAMIC 0.010UF Z		
C101,102			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C103,104			CK45FB1H152K	CERAMIC 1500PF K		
C105,106			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C107,108			CE04KW1C220M	ELECTRO 22UF 16WV		
C109,110			CF92FV1H104J	MF 0.10UF J		
C111,112			CF92FV1H683J	MF 0.068UF J		
C113			CE04KW1E101M	ELECTRO 100UF 25WV		
C114			CF92FV1H103J	MF 0.010UF J		
C115			CF92FV1H104J	MF 0.10UF J		
C116			CE04KW1C330M	ELECTRO 33UF 16WV		
C117			CE04KW1C220M	ELECTRO 22UF 16WV		
C203,204			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C205,206			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C207,208			CE04KW1V100M	ELECTRO 10UF 35WV		
C209,210			CC45FSL2H221J	CERAMIC 220PF J		
C211,212			CK45FB1H681K	CERAMIC 680PF K		
C213,214			CE04KW1A101M	ELECTRO 100UF 10WV		
C215			CE04KW1C101M	ELECTRO 100UF 16WV		
C301,302			C91-1434-05	FILM 150PF J		
C303,304			C91-1436-05	FILM 220PF J		
C305,306			CK45FB1H561K	CERAMIC 560PF K		
C307,308			CK45FF1H103Z	CERAMIC 0.010UF Z		
C309,310			CF92FV1H153J	MF 0.015UF J		
C311,312			CK45FF1H223Z	CERAMIC 0.022UF Z		
C313-316			CE04KW1V100M	ELECTRO 10UF 35WV		
C317			CC45FSL2H100D	CERAMIC 10PF D		

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C320			CQ93HP2A682J	MYLAR 6800PF J		
C321			CF92FV1H153J	MF 0.015UF J		
C322, 323			CF92FV1H472J	MF 4700PF J		
C324			CF92FV1H682J	MF 6800PF J		
C325			CE04KW1C101M	ELECTRØ 100UF 16WV		
C326			CE04KW1H010M	ELECTRØ 1.0UF 50WV		
C327			CE04KW1C101M	ELECTRØ 100UF 16WV		
C328			CK45FF1H103Z	CERAMIC 0.010UF Z		
C401, 402			CE04KW1C220M	ELECTRØ 22UF 16WV		
C403, 404			CC45FSL1H101J	CERAMIC 100PF J		
C405-409			CE04KW1C220M	ELECTRØ 22UF 16WV		
C410			CE04KW1V100M	ELECTRØ 10UF 35WV		
C421-424			CE04KW1C220M	ELECTRØ 22UF 16WV		
C425			CK45FF1H103Z	CERAMIC 0.010UF Z		
C426			CE04KW1V100M	ELECTRØ 10UF 35WV		
C427			CE04KW1A101M	ELECTRØ 100UF 10WV		
C428, 429			CF92FV1H103J	MF 0.010UF J		
C441, 442			CF92FV1H471J	MF 470PF J		
C501, 502			CC45FSL1H221J	CERAMIC 220PF J		
C503, 504			CK45FF1H103Z	CERAMIC 0.010UF Z		
C601			CF92FV1H103J	MF 0.010UF J		
C602			CE04KW1V222M	ELECTRØ 2200UF 35WV		
C603, 604			CE04KW1E101M	ELECTRØ 100UF 25WV		
C699			CF92FV1H103J	MF 0.010UF J		
C700			CE04KW1H470M	ELECTRØ 47UF 50WV		
C701			CK45FF1H103Z	CERAMIC 0.010UF Z		
C702			CE04KW1V222M	ELECTRØ 2200UF 35WV		
C703, 704			CE04KW1C101M	ELECTRØ 100UF 16WV		
C710, 711			CE04KW1A101M	ELECTRØ 100UF 10WV		
C712			CK45FB1H102K	CERAMIC 1000PF K		
C713			CF92FV1H104J	MF 0.10UF J		
C714			CE04KW1A101M	ELECTRØ 100UF 10WV		
C715			CE04KW1H471M	ELECTRØ 470UF 50WV		
C716			CE04KW1H100M	ELECTRØ 10UF 50WV		
C717			CK45FF1H103Z	CERAMIC 0.010UF Z		
C718			CE04KW1V330M	ELECTRØ 33UF 35WV		
C719			CE04KW1A101M	ELECTRØ 100UF 10WV		
C720			CK45FF1H223Z	CERAMIC 0.022UF Z		
C721			CE04KW1C101M	ELECTRØ 100UF 16WV		
C722			CK45FF1H223Z	CERAMIC 0.022UF Z		
C723			CE04KW1V100M	ELECTRØ 10UF 35WV		
C730			CE04KW1V100M	ELECTRØ 10UF 35WV		
C731			CE04KW1H3R3M	ELECTRØ 3.3UF 50WV		
C732			CE04KW1H2R2M	ELECTRØ 2.2UF 50WV		
C733			CE04KW1H010M	ELECTRØ 1.0UF 50WV		
C734-736			CC45FSL1H221J	CERAMIC 220PF J		
C750, 751			CK45FF1H103Z	CERAMIC 0.010UF Z		
C752			CF92FV1H682J	MF 6800PF J		
C753			CE04KW1HR22M	ELECTRØ 0.22UF 50WV		
△ C761			C91-1439-05	FILM 0.01UF 250VAC	EGPXT	
△ C762			C91-1439-05	FILM 0.01UF 250VAC	M	
C801, 802			CE04KW1V4R7M	ELECTRØ 4.7UF 35WV		
C803-805			CE04KW1C470M	ELECTRØ 47UF 16WV		
C806			CE04KW1V100M	ELECTRØ 10UF 35WV		
C807			CE04KW1H0R1M	ELECTRØ 0.1UF 50WV		

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C901 C902 C904 C951,952 C953,954			CE04KW1V4R7M CE04KW1H010M C90-1826-05 CE04KW1C330M CE04KW1V4R7M	ELECTRO 4.7UF 35WV ELECTRO 1.0UF 50WV BACKUP 0.047F 5.5WV ELECTRO 33UF 16WV ELECTRO 4.7UF 35WV		
C955			CE04KW1V100M	ELECTRO 10UF 35WV		
J41 J51 J81 W222			E13-0445-05 E11-0188-05 E11-0190-05 E29-1611-04	PHONE JACK (4P) MINIATURE PHONE JACK(2P) PHONE JACK LEAD PLATE		
L11 ,12 L21 ,22 L31 ,32 L33 X1			L79-0720-05 L40-1035-29 L32-0547-05 L32-0531-05 L78-0290-05	LC FILTER SMALL FIXED INDUCTOR(10MH, J) BIAS OSCILATING COIL BIAS OSCILATING COIL RESONATOR (8MHZ)		
R20 R116 R230 R320,321 R326			RD14NB2E221J RD14NB2E680J RD14NB2E181J R92-0219-05 RD14NB2E821J	RD 220 J 1/4W RD 68 J 1/4W RD 180 J 1/4W FUSE RESIST 10 G 1/4W RD 820 J 1/4W		
R417,418 R606 R710 R715 VR1 ,2			RN14BK2C1502F RS14KB3D222J R92-0508-05 RD14NB2E332J R12-0606-05	RN 15.0K F 1/6W FL-PROOF RS 2.2K J 2W FUSE RESIST 22 G 1/4W RD 3.3K J 1/4W TRIMMING POT.(330)		
VR21,22 VR31,32 VR71 VR95			R12-3686-05 R12-3688-05 R12-1618-05 R12-1619-05	TRIMMING POT.(22K) TRIMMING POT.(47K) TRIMMING POT.(3.3K) TRIMMING POT.(4.7K)		
K1 S1			S76-0027-05 S62-0001-05	MAGNETIC RELAY SLIDE SWITCH	M	
D1 D1 D2 ,3 D2 ,3 D11			HZS11N(B2) RD11ES(B2) HSS104 1SS133 HZS6.8N(B2)	ZENER DIODE ZENER DIODE DIODE DIODE ZENER DIODE		
D11 D21 D21 D31 D31			RD6.8ES(B2) HZS11N(B2) RD11ES(B2) HSS104 1SS133	ZENER DIODE ZENER DIODE ZENER DIODE DIODE DIODE		
D41 D41 D42 -44 D61 D65			HZS6.8N(B2) RD6.8ES(B2) 1SS133 KBP02ML-6127 HZS16N(B2)	ZENER DIODE ZENER DIODE DIODE DIODE ZENER DIODE		
D65 D66 D66 D71 D72			RD16ES(B2) HSS104 1SS133 KBP02ML-6127 HZS13N(B2)	ZENER DIODE DIODE DIODE DIODE ZENER DIODE		
D72 D73			RD13ES(B2) HZS6.8N(B2)	ZENER DIODE ZENER DIODE		

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D73			RD6.8ES(B2)	ZENER DIODE		
D74			S5688B	DIODE		
D74			1SR139-100	DIODE		
△ D75			S5688B	DIODE		
△ D75			1SR139-100	DIODE		
D76			HZS4.7N(B)	ZENER DIODE		
D76			RD4.7ES(B)	ZENER DIODE		
D77 ,78			HSS104	DIODE		
D77 ,78			1SS133	DIODE		
D81 ,82			HSS104	DIODE		
D81 ,82			1SS133	DIODE		
△ D91 ,92			HSS104A	DIODE		
△ D91 ,92			1SS131	DIODE		
D93 -95			HSS104	DIODE		
D93 -95			1SS133	DIODE		
D501-510			HSS104	DIODE		
D501-510			1SS133	DIODE		
D701			HZS5.6N(B2)	ZENER DIODE		
D701			RD5.6ES(B2)	ZENER DIODE		
D710,711			HSS104	DIODE		
D710,711			1SS133	DIODE		
IC1			TA8125S	IC(2CH PRE AMP)		
IC11			CXA1563S	ANALOGUE IC		
IC21			CXA1198AP	IC(CASSETTE DECK REC EQUALIZER		
IC31			UPC1297CA	IC(DOL HX PRO SYSTEM)		
IC41			NJM4565L-D	IC(OP AMP X2)		
IC42			TC4066BP	IC(ANALOG/ DIGITAL SW)		
IC42			XRU4066B	ANALOGUE IC		
IC81			NJM4565L-D	IC(OP AMP X2)		
IC91			S-80740AL	IC(VOLTAGE DETECTOR)		
IC95			BA6138	IC(ROOT AMP X2)		
IC701			HD6433723C08F	MI-COM IC		
IC702			BA10393N	IC(DUAL COMPARTOR)		
Q1 ,2			2SC2458(Y,GR)	TRANSISTOR		
Q1 ,2			2SC3311A(Q,R)	TRANSISTOR		
Q3 ,4			DTC124ES	DIGITAL TRANSISTOR		
Q3 ,4			UN4212	TRANSISTOR		
Q5			2SC2458(Y,GR)	TRANSISTOR		
Q5			2SC3311A(Q,R)	TRANSISTOR		
Q11 -14			DTC124ES	DIGITAL TRANSISTOR		
Q11 -14			UN4212	TRANSISTOR		
Q15			2SA1048(Y,GR)	TRANSISTOR		
Q15			2SA1309A(Q,R)	TRANSISTOR		
Q21 ,22			2SC2458(Y,GR)	TRANSISTOR		
Q21 ,22			2SC3311A(Q,R)	TRANSISTOR		
Q23 -25			DTC124ES	DIGITAL TRANSISTOR		
Q23 -25			UN4212	TRANSISTOR		
Q42			2SC2458(Y,GR)	TRANSISTOR		
Q42			2SC3311A(Q,R)	TRANSISTOR		
Q45 ,46			2SD1302(S,T)	TRANSISTOR		
△ Q61			2SD2012	TRANSISTOR		
△ Q61			2SD2061	TRANSISTOR		
△ Q62			2SC2458(Y,GR)	TRANSISTOR		
△ Q62			2SC3311A(Q,R)	TRANSISTOR		
Q63 ,64			DTC124ES	DIGITAL TRANSISTOR		

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Q63 ,64			UN4212	TRANSISTOR		
△ Q71			2SD2012	TRANSISTOR		
△ Q71			2SD2061	TRANSISTOR		
△ Q72			2SC2458(Y,GR)	TRANSISTOR		
△ Q72			2SC3311A(Q,R)	TRANSISTOR		
Q73 ,74			DTC124ES	DIGITAL TRANSISTOR		
Q73 ,74			UN4212	TRANSISTOR		
△ Q75			2SD2012	TRANSISTOR		
△ Q75			2SD2061	TRANSISTOR		
△ Q76			2SB1370	TRANSISTOR		
△ Q76			2SB1375	TRANSISTOR		
Q77			2SA1048(Y,GR)	TRANSISTOR		
Q77			2SA1309A(Q,R)	TRANSISTOR		
Q81 ,82			2SC2458(Y,GR)	TRANSISTOR		
Q81 ,82			2SC3311A(Q,R)	TRANSISTOR		
Q91			2SC2458(Y,GR)	TRANSISTOR		
Q91			2SC3311A(Q,R)	TRANSISTOR		
Q301			2SC3246	TRANSISTOR		
Q302,303			2SD863(E,F)	TRANSISTOR		
Q304,305			DTC113ZS	DIGITAL TRANSISTOR		
Q304,305			UN4219	TRANSISTOR		
Q307-314			DTC124ES	DIGITAL TRANSISTOR		
Q307-314			UN4212	TRANSISTOR		
Q701,702			DTA143TS	DIGITAL TRANSISTOR		
Q701,702			UN4116	TRANSISTOR		
Q703,704			2SC2458(Y,GR)	TRANSISTOR		
Q703,704			2SC3311A(Q,R)	TRANSISTOR		
Q705,706			2SC3940A(R,S)	TRANSISTOR		
Q705,706			2SD863(E,F)	TRANSISTOR		
Q707			DTC124ES	DIGITAL TRANSISTOR		
Q707			UN4212	TRANSISTOR		
MECHANISM ASSY (D40-1351-X5)						
2	3A		A11-0649-08	MECHA BASE		
5	3B	*	D01-0174-08	FLYWHEEL ASSY		
7	1B		D03-0280-08	REEL ASSY (T)		
8	1A		D03-0281-08	REEL (S)		
11	2B		D10-2365-08	BRAK ARM		
12	2A		D10-2366-08	TRIGGER ARM		
13	2B		D10-2367-08	PLAY ARM		
14	2A		D10-2368-08	SHIFT LEVER		
15	1A	*	D10-3499-08	INTER LOCK LEVER		
16	1A		D10-3505-08	LEVER		
17	2B		D13-0836-08	FF GEAR		
18	2B		D13-0838-08	PLAY GEAR		
19	2A	*	D13-1658-08	PLAY CAM GEAR		
20	1B	*	D14-0366-08	PINCH ROLLER ASSY		
22	3B	*	D16-0373-08	CLUTCH BELT		
23	3B	*	D16-0374-08	DRIVE BELT		
25	3B		D19-0258-08	CLUTCH ASSY		
26	1B	*	D19-0286-08	REEL CAP		
28	1B	*	D23-0317-08	HOUSING ASSY		
30	3A	*	E35-0933-08	MOTO WIRE		
31	2B	*	E35-0934-08	FLAT RIBBON WIRE (15PIN)		

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32	1A	*	E35-0935-08	HEAD WIER ASSY (7PIN)		
34	3A	*	F10-0960-08	SHIELD PLATE		
35	1A		G01-2364-08	EJECT LOCK ARM (R) SPR (B)		
36	2B		G01-2428-08	BRAKE ARM SPRING		
37	2A		G01-2429-08	TRIGGER ARM SPRING		
38	2B		G01-2430-08	PLAY ARM SPRING		
39	1B		G01-2431-08	REEL SPRING (B)		
40	3B		G01-2432-08	CLUTCH ARM SPRING		
41	2A		G01-2433-08	SHIFT LEVER SPRING		
42	1A		G01-2435-08	HEAD SPRING		
43	1A	*	G01-3740-08	PINCH ROLLER SPRING		
44	1A		G01-3741-08	EJECT LEVER SPRING (L)		
45	1A	*	G01-3775-08	HEAD CHASSIS SPRING		
47	1B		G02-0913-08	PACK SPRING		
49	1A	*	G13-0182-08	CUSHION		
50	1B	*	G16-0838-08	REFRECT SEAL		
52	1B	*	J19-3131-08	SW PROTECTOR		
53	2B	*	J19-3652-08	CABLE HOLDER		
54	1A		J19-3706-08	EJECT HOLDER		
56	3A		J21-5577-08	MOTOR BKT		
60	2A		J29-0155-08	HEAD BASE		
62	1A		J31-0825-08	LOCK ARM COLLER		
64	1A	*	J31-0866-08	EJECT COLLAR (B)		
68	1B	*	J90-0680-08	CASSETTE GUIDE		
70	1A, 1B		N09-1496-08	TAP TITE SCREW (2X4)		
EH	1A		T32-0316-08	ERESE HEAD		
MM	3A		T42-0685-08	MOTOR ASSY		
RPH	1A		T34-0337-08	RP HEAD		

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KX-3060

SPECIFICATIONS

Track System	4 track, 2 channel stereo
Recording System	AC bias (Frequency: 105 kHz)
Heads.....	Playback/recording head ... 1
	Erasing head 1
Motors	DC motor × 1
Wow and Flutter	±0.16 % (IEC)
	0.09 % (W.RMS)
Fast Winding Time ...	Approx. 110 seconds (C-60 tape)
Frequency Response	
Normal Tape	20 Hz to 17,000 Hz, ±3 dB
CrO ₂ Tape	20 Hz to 17,000 Hz, ±3 dB
Metal Tape	20 Hz to 18,000 Hz, ±3 dB
Signal to Noise Ratio	
Dolby NR OFF	56 dB
	(IEC, 250 nWb/m, Metal tape)
Dolby NR OFF	57 dB
Dolby B NR ON	67 dB
Dolby C NR ON	73 dB
	(3rd, H.D., 3 %, Metal tape)
Harmonic Distortion	Less than 1.9 %
	(at 315 Hz, 3rd H.D., 250 nWb/m, Metal tape)

Input sensitivity/Impedance	
LINE IN	100 mV/47 kΩ
Output Level/Impedance	
LINE OUT	775 mV/1 kΩ
Headphones	0.9 mW/32 Ω
[General]	
Power Consumption	20 W
Dimensions	W: 440 mm (17-5/16")
	H: 127 mm (5")
	D: 276 mm (10-7/8")
Weight (Net)	3.8 kg (8.4 lb)

Note:
KENWOOD follows a policy of continuous advancements in development. For this reason specification may be changed without notice.

KENWOOD CORPORATION

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Note:
Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on the general market (M) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.